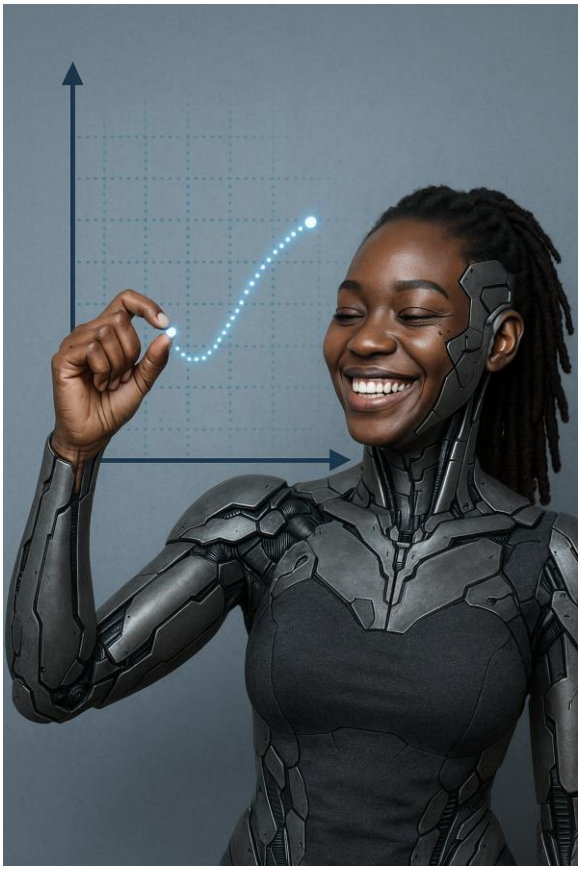
Introduction to Impossible Probability,

Statistics of Probability or

Probabilistic Statistics. VOL 9

Dr Rubén García Pedraza



Introduction to Impossible Probability,

Statistics of Probability or Probabilistic Statistics

Dr Rubén García Pedraza

2015, Revised Edition, for Print and eBook Version.

Translated into English in September 2025,

using ChatGPT, keeping the translation as faithful as possible to the original

Preliminary Words [2015 edition]

Introduction to Impossible Probability, Statistics of Probability or Probabilistic Statistics is one of those works in which a deep bond between mathematics and philosophy can be found.

It always asks about the ultimate purpose of science, wrapped in a veil of uncertainty and relativity.

There is always a halo of indeterminism, since in the end it is chance itself—the random variations of what we call reality, although we do not quite know what it is—that becomes the cause of causes.

From an interpretation not devoid of a certain nihilism, it offers a different vision of mathematics applied to statistics and probability.

The work is organized into a series of sections whose exposition unfolds in a continuous manner, each section and each paragraph being numbered in an ordered numerical sequence, in a way that facilitates reading.

Introduction to Impossible Probability first appeared in December 2011, in a limited edition of which a few copies still remain. It was later modified into a new eBook version that appeared in January 2013, whose first revision dates from January 2014. The version now presented is the latest update, based on contributions from January 2015.

To all readers, many thanks, and enjoy,
Rubén García Pedraza

Preliminary Words to the English Translation

The work presented here, *Introduction to Impossible Probability*, is essential for understanding the original meaning of the Global Artificial Intelligence. Its origins can be traced back to my writings in 2002 on Astro-ecology, the science that understands the cosmos as a single environment that must be studied from a unified, single science. In essence, this is what the Global Artificial Intelligence seeks to achieve. At the same time, in 2002 I developed the formulations of Impossible Probability, beginning in the early hours of September 11, 2001 with the *Impact of the Defect*, which was later expanded into the *Second Method* on October 16, 2002.

In essence, the entire original philosophy is based on the Cartesian idea of the necessity of a margin of doubt in any scientific proposition. This Cartesian margin of doubt would later, in the application of Karl Popper's falsificationism to inferential statistics, be understood as *critical reason*, the necessary and acceptable margin of error in any provisionally true proposition.

Impossible Probability maintains and deepens the Cartesian and Popperian rationalist tradition, enriching it with new philosophical contributions and some mathematical formulations. It rests on the understanding that the necessity of a margin of doubt in the existence of every provisional truth stems from the human limitation of being incapable of accessing the noumenon of things. It is this a priori limitation—the metaphysical limitation of the human condition—that requires humans to accept errors. Yet this does not mean that the noumenon cannot be known by other means. For this reason, in *Impossible Probability* we propose the construction of the Global Artificial Intelligence: a machine capable of making real the dream of a unified science, a single science that may lead us to the reason for all things. The creation of a global matrix, which may ultimately be resolved in a single equation, will provide the equation that solves the matrix, the very reason for everything.

Due to the special conditions in which I find myself—explained in other documents available on Internet Archive and Amazon—I am compelled to publish as quickly as I translate. For this reason, the English version of *Introduction to Impossible Probability* will be released in volumes as the translation progresses.

September 1, 2025, London, Leytonstone, 18:32

Imposiblenever@gmail.com

“What did you do with the other guys

Did people brush their teeth

In the concentration camp”

Ruben Garcia Pedraza

Poem “*Mr Saddle”*

At Stratford Library Poetry Club

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20. Omega inter-measurement studies

19. Intermeditional, Interindividual, or Intraindividual Studies

19.1. Concept of Intermeditional, Interindividual, or Intraindividual Studies

19.1.1. An intrameditional study is one that is solely devoted to studying the behavior within a single measurement by itself, without subjecting it to comparisons or contrasts in relation to other different measurements. Insofar as the intrameditional study examines the intramost interindividual relationships—the relationships between subjects or options within a single measurement—it is normally the type of study corresponding to descriptive statistics on a single measurement. For example, in the Second Method, when calculating the relative empirical dispersion of any given subject or option “p(xn)” in relation to all other subjects or options in the same sample, thus calculating its relative Mean or Typical Deviation “DMoS(n),” what is being done is an example of an intrameditional interindividual study.

19.1.2. Normal intrameditional studies are those that examine the normal behavior of subjects or options. For example, the normal Mean or Typical Deviation is a normal intrameditional study, as it examines the normal tendency of empirical dispersion.

19.1.3. Intermeditional studies are those studies in which empirical probabilities of different measurements are contrasted. Intermeditional studies may be intermeditional–interindividual studies or intermeditional–intraindividual studies.

19.1.4. An intermeditional interindividual study is one in which the empirical probabilities of different subjects or options across different measurements are related. For example, an intermeditional interindividual study of the maximum empirical probability: comparing the maximum empirical probability of one

measurement in relation to the maximum empirical probability of another different measurement. Since the measurements may be carried out on different subjects or options, this would therefore be an intermeditional interindividual study. Or comparing the minimum empirical probability of one measurement in relation to the minimum of another different measurement, where the minimum does not necessarily have to correspond to the same subject or option—thus making it intermeditional interindividual. In general, an intermeditional interindividual study relates the empirical probabilities of different subjects or options across different measurements. If each measurement has a different sample size N, then normally, either the first or second measurement (as decided) will need to be multiplied by the effect of N. In intermeditional contrasts, the effect of N will be multiplied by the second measurement, which in this particular case will be designated as measurement "mi" (the second measurement).

19.1.5. In an intermeditional intraindividual study, the empirical probabilities of the same subject or option in two different measurements are compared. For example, if it so happens that the same subject or option has the maximum empirical probability in two different measurements, then the comparison of those two empirical probabilities will be an intermeditional intraindividual study. Or, if the same subject or option has the minimum empirical probability in two different measurements, then the comparison of the minimum empirical probabilities achieved by the same subject or option in the two different measurements will be an intermeditional intraindividual study. In general, any comparison between two different measurements of the same subject or option will be an intermeditional intraindividual study. If the second measurement has a different variable sample size N from the first measurement, normally the empirical probability of the second measurement will be multiplied, in this particular case, by the effect of N.

19.1.6. In order to present the intermeditional, interindividual, or intraindividual equations, the legend applied in the equations will be as follows:

19.1.6.1. Legend of equations in an intermeditional interindividual study

- p(xi/1st) = empirical probability of the subject or option of the first measurement
- p(xn/2nd) = empirical probability of a different subject or option of the second measurement

19.1.6.2. Legend of equations in an intermeditional intraindividual study

- p(xi/1st) = empirical probability of the subject or option of the first measurement
- p(xi/2nd) = empirical probability of the same subject or option of the second measurement

19.2. Intermeditional Interindividual Studies

19.2.1. Intermeditional Interindividual Studies between Samples of Equal N

19.2.1.1. Critical Intermeditional Interindividual Growth in measurements of equal N. Rational critique as to whether the subject or option of the second measurement—different from the subject or option of the first measurement—has critically higher empirical probability in the second measurement. Since the ideal, in growth, is the tendency in the second measurement toward the Maximum Possible Empirical Probability (probability of one), the difference of one minus the first measurement will be contrasted in order to subtract from it the difference between the second and the first measurement. As long as the final result of the differentials is equal to or less than a critical probability, it will be accepted. The critical probability will be equal to the product of the percentage X (error) over one hundred, multiplied by the difference of one minus the first measurement.

Critical Intermeditional Interindividual Growth =

$p(xc) – [(1 – p(xi/1st)) – (p(xn/2nd) – p(xi/1st))]$ = zero or positive → growth accepted

$p(xc) = (1 – p(xi/1st)) \cdot (X : 100)$

X = error percentage

p(xi/1st) = empirical probability of the subject or option of the first measurement

p(xn/2nd) = empirical probability of a different subject or option of the second measurement

19.2.1.2. Critical Intermeditional Interindividual Decrease in measurements of equal N. Rational critique as to whether the subject or option of the second measurement—different from the subject or option of the first measurement—has critically lower empirical probability in the second measurement. Since ideally the real variation should equal the actual value of the first measurement, then the difference between the critical probability and the empirical probability of the second measurement, if zero or positive, is accepted. The critical probability equals the percentage X of error over one hundred, multiplied by the empirical probability of the first measurement.

Critical Intermeditional Interindividual Decrease =

$p(xc) – p(xn/2nd) = \text{zero or positive} \rightarrow \text{decrease accepted}$

$p(xc) = p(xi/1st) \cdot (X : 100)$

X = error percentage

p(xi/1st) = empirical probability of subject or option in first measurement

p(xn/2nd) = empirical probability of a different subject or option of the second measurement

19.2.1.3. Critical Intermeditional Interindividual Equality in measurements of equal N. Rational critique as to whether the subject or option of the second measurement—different from the subject or option of the first measurement—has in the second measurement a lower absolute value of Normal Bias Level than the

absolute value of the Normal Bias Level of the subject or option of the first measurement. If the absolute value of the Bias Level in the second measurement is equal to or less than the critical probability, then a sufficient tendency toward equality of opportunities is accepted. The critical probability equals the product of the percentage X of error over one hundred, multiplied by the absolute value of the Bias Level of the subject or option of the first measurement.

Critical Intermeditional Interindividual Equality =

$p(xc) - | p(xn/2nd) - 1/N | =$ zero or positive → equality accepted

$p(xc) = | p(xi/1st) - 1/N | \cdot (X : 100)$

X = error percentage

p(xi/1st) = empirical probability of subject or option in first measurement

p(xn/2nd) = empirical probability of a different subject or option of the second measurement

19.2.2. Intermeditional Interindividual Studies between Samples of Different N

19.2.2.1. Critical Intermeditional Interindividual Growth in measurements of different N. Rational critique as to whether the subject or option of the second measurement—different from the subject or option of the first measurement—has higher empirical probability in the second measurement. The effect of N is multiplied by the second measurement. Then the product of the empirical probability of the second measurement by the ratio of the magnitude N of the second measurement to

the magnitude N of the first measurement equals the effect of N on the empirical probability of the second measurement.

Critical Intermeditional Interindividual Growth =

$p(xc) - \{ (1 - p(xi/1st\text{-}m)) - \{ [p(xn/2nd\text{-}mi) \cdot (Nmi : Nm)] - p(xi/1st\text{-}m) \} \} =$ zero or positive → growth accepted

$p(xc) = (1 - p(xi/1st\text{-}m)) \cdot (X : 100)$

X = error percentage

p(xi/1st-m) = empirical probability of subject or option of first measurement designated “m”

p(xn/2nd-mi) = empirical probability of a different subject or option of the second measurement designated “mi”

Nmi = magnitude N of the second measurement designated “mi”

Nm = magnitude N of the first measurement designated “m”

19.2.2.2. Critical Intermeditional Interindividual Decrease in measurements of different N.

Rational critique as to whether the subject or option of the second measurement, adjusted by the effect of N and being different from the subject or option of the first measurement, has a lower empirical probability in the second measurement.

Critical Intermeditional Interindividual Decrease =

p(xc) – [p(xn/2nd–mi) · (Nmi : Nm)] = zero or positive → decrease accepted

p(xc) = p(xi/1st–m) · (X : 100)

X = error percentage

p(xi/1st–m) = empirical probability of the subject or option of the first measurement, designated measurement “m”

p(xn/2nd–mi) = empirical probability of a different subject or option of the second measurement, designated measurement “mi”

Nmi = magnitude N of the second measurement, designated “mi”

Nm = magnitude N of the first measurement, designated “m”

19.2.2.3. Critical Intermeditional Interindividual Equality in measurements of different N.

Rational critique as to whether the subject or option of the second measurement, adjusted by the effect of N and being different from the subject or option of the first measurement, has in the second measurement an absolute value of Normal Bias Level, adjusted by the effect of N, equal to or less than the critical probability (the

product of the percentage X of error, over one hundred, times the absolute value of the Normal Bias Level of the subject or option of the first measurement).

Critical Intermeditional Interindividual Equality =

p(xc) – | { [p(xn/2nd–mi) · (Nmi : Nm)] – 1/Nm } | = zero or positive → equality of opportunities accepted

p(xc) = | (p(xi/1st–m) – 1/Nm) | · (X : 100)

X = error percentage

p(xi/1st–m) = empirical probability of subject or option of the first measurement, designated measurement “m”

p(xn/2nd–mi) = empirical probability of a different subject or option of the second measurement, designated measurement “mi”

Nmi = magnitude N of the second measurement, designated “mi”

Nm = magnitude N of the first measurement, designated “m”

1/Nm = inversion of N of the first measurement designated “m”

19.3. Intermeditional Intraindividual Studies

19.3.1. Intermeditional Intraindividual Studies between samples of equal N

19.3.1.1. Critical Intermeditional Intraindividual Growth in measurements of equal N.

Rational critique as to whether the same subject or option in the second measurement achieves sufficient critical growth in relation to the first measurement.

Critical Intermeditional Intraindividual Growth =

$p(xc) – [(1 – p(xi/1st)) – (p(xi/2nd) – p(xi/1st))]$ = zero or positive → growth accepted

$p(xc) = (1 – p(xi/1st)) \cdot (X : 100)$

X = error percentage

p(xi/1st) = empirical probability of subject or option in the first measurement

p(xi/2nd) = empirical probability of the same subject or option in the second measurement

19.3.1.2. Critical Intermeditional Intraindividual Decrease in measurements of equal N.

Rational critique as to whether the same subject or option in the second measurement achieves sufficient critical decrease in relation to the first measurement.

Critical Intermeditional Intraindividual Decrease =

p(xc) – p(xi/2nd) = zero or positive → decrease accepted

p(xc) = p(xi/1st) · (X : 100)

X = error percentage

p(xi/1st) = empirical probability of subject or option in the first measurement

p(xi/2nd) = empirical probability of the same subject or option in the second measurement

19.3.1.3. Critical Intermeditional Intraindividual Equality in measurements of equal N.

Rational critique as to whether the same subject or option, with sufficient criticality, tends more toward inversion of N in the second measurement than in the first.

Critical Intermeditional Intraindividual Equality =

$p(xc) - | p(xi/2nd) - 1/N | =$ zero or positive → equality accepted

$p(xc) = | (p(xi/1st) - 1/N) | \cdot (X : 100)$

X = error percentage

p(xi/1st) = empirical probability of subject or option in the first measurement

p(xi/2nd) = empirical probability of the same subject or option in the second measurement

19.3.2. Intermeditional Intraindividual Studies between samples of different N

19.3.2.1. Critical Intermeditional Intraindividual Growth in measurements of different N.

Rational critique as to whether the same subject or option in the second measurement achieves sufficient critical growth in relation to the first measurement.

Critical Intermeditional Intraindividual Growth =

$p(xc) – \{ (1 – p(xi/1st–m)) – \{ [p(xi/2nd–mi) \cdot (Nmi : Nm)] – p(xi/1st–m) \} \}$ = zero or positive → growth accepted

$p(xc) = (1 – p(xi/1st–m)) \cdot (X : 100)$

X = error percentage

p(xi/1st–m) = empirical probability of subject or option in the first measurement designated “m”

p(xi/2nd–mi) = empirical probability of the same subject or option in the second measurement designated “mi”

Nmi = magnitude N of the second measurement, designated “mi”

Nm = magnitude N of the first measurement, designated “m”

19.3.2.2. Critical Intermeditional Intraindividual Decrease in measurements of different N.

Rational critique as to whether the same subject or option in the second measurement achieves sufficient critical decrease in relation to the first measurement.

Critical Intermeditional Intraindividual Decrease =

p(xc) – [p(xi/2nd–mi) · (Nmi : Nm)] = zero or positive → decrease accepted

p(xc) = p(xi/1st–m) · (X : 100)

X = error percentage

p(xi/1st–m) = empirical probability of subject or option in the first measurement designated “m”

p(xi/2nd–mi) = empirical probability of the same subject or option in the second measurement designated “mi”

Nmi = magnitude N of the second measurement, designated “mi”

Nm = magnitude N of the first measurement, designated “m”

19.3.2.3. Critical Intermeditional Intraindividual Equality in measurements of different N.

Rational critique as to whether the same subject or option in a second measurement achieves a greater tendency toward inversion of N than in the first measurement.

Critical Intermeditional Intraindividual Equality =

$p(xc) - | \{ [p(xi/2nd–mi) \cdot (Nmi : Nm)] - 1/Nm \} |$ = zero or positive → equality accepted

$p(xc) = | (p(xi/1st–m) - 1/Nm) | \cdot (X : 100)$

X = error percentage

p(xi/1st–m) = empirical probability of subject or option in the first measurement designated “m”

p(xi/2nd–mi) = empirical probability of the same subject or option in the second measurement designated “mi”

Nmi = magnitude N of the second measurement, designated “mi”

Nm = magnitude N of the first measurement, designated “m”

1/Nm = inversion of N in the first measurement designated “m”

19.3.3. Reliable Significance in intermeditional study

19.3.3.1. Concept of Reliable Significance in intermeditional study

19.3.3.1.1. Critical Growth, Critical Decrease, and Critical Equality are models of intermeditional, interindividual, or intraindividual study, which are characterized by being error studies when calculating the critical ratio over a percentage X of error

19.3.3.1.2. If the intermeditional studies were to be carried out on critical reliability ratios, the type of test that should be used should be the Test of Reliable, Empirical or Critical Possible Variation, Individual, a type of test that makes the most sense in any case in intraindividual intermeditional studies, to the extent that the necessary variation is the variation in which a factor must vary, over which the possible variation of that factor is estimated a priori in order to contrast the real variation of that same factor

19.3.3.1.3. If in an intermeditional study it were necessary to estimate the interindividual intermeditional variation, then it is no longer a matter of studying the necessary variation in which a given factor must really vary over a possible one to be sufficiently reliable, what is estimated is, over a maximum variation, between a maximum limit value, whether Maximum Empirical Probability or Minimum Empirical Probability, in relation to any factor in a first measurement, what should be the real variation to be reliable that should occur in another different factor

19.3.3.1.4. Reliable Significance will be the adaptation of the Test of Critical Reliable Possible Variation to interindividual intermeditional studies, being exactly the same varying only in that the real variation will not be calculated on the real variation in the same subject or option, which is the way in which the real variation is estimated in the Test of Critical Reliable Possible Variation, because in Reliable Significance the necessary variation will be estimated over the differential of measurements of different subjects or options

19.3.3.2. Reliable Significance in interindividual intermeditional studies of equal N

19.3.3.2.1. Reliable Significance of Interindividual Intermeditional Growth

$(p(xn/2^a) – p(xi/1^a)) – [(1 – p(xi/1^a)) \cdot p(xc)]$ = zero or positive growth is accepted

$p(xc) = X : 100$

X = reliability percentage

19.3.3.2.2. Reliable Significance of Interindividual Intermeditional Decrease

$(p(xi/1^a) – p(xn/2^a)) – [p(xi/1^a) \cdot p(xc)]$ = zero or positive decrease is accepted

$p(xc) = X : 100$

X = reliability percentage

19.3.3.2.3. Reliable Significance of Interindividual Intermeditional Equality

$\{ / (p(xi/1^a) – 1/N) / – / (p(xn/2^a) – 1/N) / \} – [/ (p(xi/1^a) – 1/N) / \cdot p(xc)]$ = zero or positive equality is accepted

$p(xc) = X : 100$

X = reliability percentage

19.3.3.3. Reliable Significance in interindividual intermeditional study of different N

19.3.3.3.1. Reliable Significance of Interindividual Intermeditional Growth

{ [p(xn/2ª-mi) · (Nmi : Nm)] – p(xi/1ª-m) } – [(1 – p(xi/1ª-m)) · p(xc)] = zero or positive growth is accepted

p(xc) = X : 100

X = reliability percentage

19.3.3.3.2. Reliable Significance of Interindividual Intermeditional Decrease

{ p(xi/1ª-m) – [p(xn/2ª-mi) · (Nmi : Nm)] } – [p(xi/1ª-m) · p(xc)] = zero or positive decrease is accepted

p(xc) = X : 100

X = reliability percentage

19.3.3.3.3. Reliable Significance of Interindividual Intermeditional Equality

{ / (p(xi/1ª-m) – 1/Nm) / – / { [p(xn/2ª-mi) · (Nmi : Nm)] – 1/Nm } / } – [/ (p(xi/1ª-m) – 1/N) / · p(xc)] = zero or positive equality is accepted

p(xc) = X : 100

X = reliability percentage

19.3.4. Intermeditional Critical Proportion

19.3.4.1. Concept of Intermeditional Critical Proportion

19.3.4.1.1. Every quotient between two factors measures the proportion of the first factor in comparison to the second factor, then depending on whether the first factor is interpreted positively or negatively the tendency of the quotient will be interpreted positively or negatively. If the first factor is interpreted negatively the proportion of the quotient must tend to zero, and only that result equal to or lower than a margin of error will be accepted. If the first factor is interpreted positively only that tendency equal to or higher than a margin of reliability will be accepted. Given two different measurements in the same subject or option, depending on the object of study the quotient will be interpreted, and depending on the interpretation the modality of rational critique will depend. If in positive bias study the ideal is empirical probability of the second measurement higher than that of the first measurement, the quotient between both, of the second over the first, will be valued positively. If in negative bias study, the probability itself is a negative factor, it will be valued positively that the quotient, empirical probability of the second measurement over empirical probability of the first measurement, tends to zero, just as in equality of opportunities study, while the ideal is to eliminate any bias, positive or negative, the tendency of any absolute value of future bias over a previous one, should likewise be a tendency to zero. Depending on the object of study the ideals will be established to rationally critique the tendency of the quotient, establishing the critical probability according to the product of percentage X, of error or reliability, over one hundred, by the maximum tendency, and only that tendency equal to or higher will be accepted, if the ideal is the tendency of the quotient to grow, or equal to or lower, if the ideal is the tendency of the quotient to zero, to the critical probability

19.3.4.1.2. To the extent that in positive bias study, the quotient empirical probability of second measurement over empirical probability of first measurement, the empirical probability of the second measurement must tend to Maximum Possible Empirical

Probability, the unit, critical probability equal to percentage X of reliability, over one hundred, by quotient of dividing the unit over empirical probability of first measurement. Every quotient, of second over first measurement, equal or higher than critical ratio is accepted

19.3.4.1.3. To the extent that in negative bias study the quotient of empirical probability of second measurement over empirical probability of first measurement, and in equality of opportunities the absolute value of Level of Bias of second measurement over absolute value Level of Bias of first measurement, the first factor of the quotient must tend to zero, it would be negatively valued that the factor of the second measurement were equal or higher than first measurement, then the first measurement acts as maximum value, whereas any second measurement equal or higher than first measurement, in negative bias or equality, would be rejected, then the critical probability will be equal to percentage X of error over one hundred, insofar as the unit itself of the quotient is the maximum acceptable error consistent with the object of study insofar as the first factor is itself already valued negatively

19.3.4.1.4. In order not to extend the expositions, the developments will be shown for interindividual intermeditional studies of equal N, but in the same way it could be applied to studies of different N, and in any case to intraindividual intermeditional studies of equal N or different N. In case of different N apply the effect of N to the second measurement

19.3.4.2. Interindividual Intermeditional Critical Proportion of Positive Bias

(p(xn/2ª) : p(xi/1ª)) – p(xc) = zero or positive positive bias growth is accepted

p(xc) = (1 : p(xi/1ª)) · (X : 100)

X = reliability percentage

19.3.4.3. Interindividual Intermeditional Critical Proportion of Negative Bias

p(xc) – (p(xn/2ª) : p(xi/1ª)) = zero or positive negative bias growth is accepted

p(xc) = X : 100

X = error percentage

19.3.4.4. Interindividual Intermeditional Critical Proportion of Equality

p(xc) – [/ (p(xn/2ª) – 1/N) / : / (p(xi/1ª) – 1/N) /] = zero or positive equality is accepted

p(xc) = X : 100

X = error percentage

19.3.5. In order not to extend the expositions further, as has been said, for intraindividual intermeditional studies, the Critical Proportions, of Growth, Decrease or Equality, would be identical to those set out, except that the empirical probability of the second measurement would be from the same subject or option from which the empirical probability was measured in the first measurement, and in case the measurements had different N, whether in interindividual or intraindividual studies, then apply the effect of N to one of the two measurements, designating one of them measurement “Nmi”, and the other “Nm”, and multiply the empirical probability of the “Nmi” measurement by the effect of N

19.4. Synthesis of the intermeditional study

19.4.1. The studies can be classified according to different variables, depending on the type of universe, universes of infinite subjects or options or universes of limited options, and within the universes of limited options, of options limited materially or socially by the hypothesis [or technological options], or of options limited to a variable magnitude N. Depending on the approach, a study will be descriptive inductive or inferential deductive, being the hypothetical-deductive method on which depends the acceptance of hypotheses, on hypotheses the construction of theories, on theories the elaboration of models, and on models the establishment of the paradigm, of a particular science or the universal paradigm of science. According to the object of study: equality of opportunities or bias, differentiating between positive bias and negative bias. According to the critical ratio, error or reliability studies, depending on whether the critical probability is calculated over a percentage X of error or reliability, out of one hundred, by the maximum or ideal tendency, or depending on the type of modality of empirical error or reliability. And finally, a last way of classifying the different study models is to differentiate between intrameditional or intermeditional studies. Intrameditional studies are those that focus on the relations between data of the same measurement, then they will always be intramuestral, on the same sample, while the intermeditional ones study relations between different measurements, whether or not from the same sample, intramuestral or intermuestral, in any case always on different

measurements, intermeditional. Within the intermeditional, it is necessary to distinguish intraindividual or interindividual. Intraindividual intermeditional studies study the relations between the data of the same subject or option in different measurements, while interindividual intermeditional studies study the relations between the data of different subjects or options in different measurements, from the same sample, intramuestral, or different, intermuestral, and regardless of whether the different measurements are made on one or more samples the intermeditional studies, inter or intraindividual, will always proceed in the same way, which is why only reference is made to whether they are intra or interindividual, inter or intrameditional

19.4.1.1. Within the models of intraindividual intermeditional studies, a first model of study, intraindividual intermeditional, Test of Possible Variation, by Chance or Reliable, Critical or Empirical, Individual, only a real variation by chance is accepted if it is equal to or less than the Possible Variation by Chance, Critical or Empirical, Individual, or a change in the behavior of a subject or option in two different measurements will be accepted as reliable if it is equal to or greater than Reliable Possible Variation, Critical or Empirical, Individual

19.4.1.2. A second model of intraindividual intermeditional study, the predictions, the Projected Probability and Predicted Probability. According to the measurements, a linear prediction is estimated a priori, so that, if in a future measurement the subject or option obtains a future empirical probability within the margin of error of the prediction, projected or predicted, it is accepted. In addition, in growth, whether in Projected Probability on Reliable Possible Variation, or in Predicted Probability, any future measurement equal to or greater than the lower limit of the margin of error can be accepted, or if being strict only that future measurement equal to or greater than the upper limit of the margin of error. In decrease, whether in Projected Probability on Reliable Possible Variation, or in Predicted Probability, any future measurement equal to or less than the upper limit of the margin of error can be accepted, or if being strict, only that future measurement equal to or less than the lower limit of the margin of error

will be accepted

19.4.1.3. And a third model of intermeditional study, both for interindividual and intraindividual study, the Intermeditional Critical Growth in positive bias study, the Intermeditional Critical Decrease in negative bias study, or Intermeditional Critical Equality in equality of opportunities. In addition to the models of Reliable Significance interindividual intermeditional, and the model of Intermeditional Critical Proportion, Interindividual or Intraindividual, whether Positive or Negative Bias, and Equality

19.4.2. The main difference of the intermeditional critique through Critical Growth or Decrease, or Critical Equality, Reliable Significance, and Intermeditional Critical Proportion, is that while Possible Variation or predictions are models of rational critique for intraindividual intermeditional studies, however Critical Growth or Decrease or Critical Equality, or Reliable Significance and Intermeditional Critical Proportion, are valid both for intraindividual intermeditional studies and interindividual intermeditional studies. While the rational critique of Possible Variation, by Chance or Reliable, Critical or Empirical, Individual, and the models of Projected or Predicted Probability, are only valid to study the change in behavior of the same subject or option, the models of Critical Growth or Decrease, or Critical Equality or Reliable Significance or Intermeditional Critical Proportion, allow the study of behavioral variations between different subjects or options at different moments of a particular history, accepting the changes of the history within a margin of error, in which, any ethical rejection of strict logic may be morally accepted within the political flexibility that the scientific ideology is willing to accept, although ***moral flexibility beyond logical limits may imply the acceptance of an ethical incoherence, scientific acceptance of an incoherence in itself will be an inevitable cause of crisis for the model that accepts it, at the moment the incoherence is empirically demonstrated, the political crisis of science is, in itself, scientific, outside itself, political, for itself, moral or ideological, therefore, potentially, social, to be overcome in that scientific revolution that may create that new empirical proposition more coherent than the preceding one***. The structure of science starts from the recognition of human

limitation, then not all the propositions that form science, or are accepted, provisionally scientific, are necessarily and absolutely certain, they can even be propositions admitted as true, within a margin of doubt, being aware that they are not pure or absolutely isomorphic, awaiting that science may resolve its contradictions for the formalization of a much deeper and higher proposition that resolves the previous conflicts between the being in itself pure, the really real reality, and political theory, contradictions that if not resolved will be cause or motor in history of subsequent crises in particular sciences, or general crisis of all science, crises that will only be resolved when the essential hypothesis is created for the new provisional reestablishment, before each new crisis, of equilibrium, in progressive tendency to the pure truth in itself, the moral truth of the universe in the light or reason of science or the sciences, in ever smaller margin of incongruence, but insofar as margin, although new, of uncertainty, new margin of incoherences that in its future historical evolution will transform into subsequent contradictions of future crises, to be resolved in the next revolution, within the dynamic of exponential acceleration of the frequency of crises and cyclical, paradigmatic or technological revolutions, in tendency to the isomorphism and hylomorphism of the moral and scientific revolution that will require the absolute paradigmatic redefinition of the pure identity of science, in the unification of the sciences in morality, within the human, pure or in itself

19.4.3. The importance of Critical Growth or Decrease, Critical Equality, Reliable Significance, and Critical Proportions, is that they allow a rational critique of interindividual intermeditional hypotheses, which study the change in behavior of different subjects or options in different historical moments, so that hypotheses can be elaborated, within a margin of uncertainty, about the models of behavior change in a given particular history, favoring an interindividual processual explanation and comprehension of what happens over different measurements, to study the way in which in different space-times, in different moments of a particular history, different subjects or options relate

19.4.4. Faced with the logical explanation of the unknown, whenever a proposition appears, within a margin of uncertainty, acceptable, it must be morally acceptable as long as the margin of incoherence, scientific and moral, does not imply contradiction between ethics and truth for itself of the political theory of science. In any case, the most isomorphic explanation should replace the less isomorphic. The true immorality would be to defend a hypothesis on a certain margin of error, before new hypotheses, for that same phenomenon, that explain what happens accepting a smaller margin of doubt, increasing the reliability of knowledge. If to explain the same phenomenon there are two hypotheses, the ethical thing is to accept only scientifically that hypothesis that is more reliable, in tendency to pure knowledge, any model of scientific policy that before two options does not select the one that keeps greater isomorphism, smaller margin of error, is immoral or anti-scientific

19.5. Intraindividual Intermeditional Descriptive Statistics

19.5.1. Concept of Intraindividual Intermeditional Descriptive Statistics

19.5.1.1. In intermeditional studies, it will be necessary to combine interindividual and intraindividual, and within the intraindividual to highlight the intraindividual intermeditional descriptive statistics. Given a total M set of emesimal measurements in which the same subject or option obtains a set of empirical probabilities, the set of empirical probabilities, of that subject or option in the M measurements, will be a set of empirical probabilities formed by the empirical probabilities that that same subject or option obtains in each emesimal measurement “me” [*mediciones emesimas*, in Spanish]

M = total number of measurements = { m1, m2, m3 .....me }

me = emesimal measurement

p(xi/me) = empirical probability of a subject or option in each emesimal measurement

19.5.1.2. For example, if a series of two measurements is made, the set of emesimal empirical probabilities of the subject or option will be of two empirical probabilities, each one corresponding to each of the two measurements. If a series of three measurements is made, then, the set of empirical probabilities of that subject or option in the three measurements will be a set of three empirical probabilities, each of the empirical probabilities corresponding to each measurement. If four, or five, or twenty, or emesimal measurements are made, the set of empirical probabilities of that subject or option in the four, or five, or twenty, or emesimal measurements, will be a set of four, or five, or twenty, or emesimal empirical probabilities, each one of the empirical probabilities corresponds to each one of the four, or five, or twenty, or emesimal measurements

19.5.1.3. In synthesis, given some emesimal measurements, the set of empirical probabilities of the same subject or option will be a set of emesimal empirical probabilities, each empirical probability will correspond to each of the emesimal measurements

19.5.1.4. In emesimal measurements, in decrease study, the normal, is that the subject or option will tend to reduce the empirical probability to zero, then in each subsequent emesimal measurement the normal is that the subject or option tends to lower empirical probabilities

19.5.1.5. In emesimal measurements, in growth study, the normal, is that if the subject or option to be studied is an ideal subject or option, then it will tend to increase the empirical probability, then in each subsequent emesimal measurement the subject or option will tend to higher empirical probabilities

19.5.1.6. In emesimal measurements, in equality of opportunities, the normal thing is that if the subject or option must tend to the ideal of inversion of N, in each subsequent emesimal measurement it has an empirical probability closer to the ideal, inversion of N

19.5.1.7. If, given a subject or option of which M measurements are then made, then, a descriptive statistics can be developed of the M measurements that form the set of the emesimal empirical probabilities of a subject or option. The logical thing is that if M measurements are made of a subject or option, the total number of measurements that are had of that subject or option will be a total of M empirical probabilities, then the arithmetic mean of the M empirical probabilities of that subject or option is equal to the sum of the empirical probabilities of that subject or option divided by M measurements. The Intraindividual Arithmetic Mean

19.5.1.8. If the central tendency of the subject or option is calculated in the M measurements, the dispersion in the M measurements of that subject or option could likewise be calculated, by dividing by M the sum of the absolute value of the differential of each empirical probability in each emesimal measurement minus the Intraindividual Arithmetic Mean. The Intraindividual Mean Deviation

19.5.1.9. If the Intraindividual Mean Deviation can be calculated, in the same way the Intraindividual Variance, the Intraindividual Standard Deviation could be calculated

19.5.1.10. If a whole Intraindividual Intermeditional Descriptive Statistics can be developed, likewise all types of rational critique studies could be done, through Critical Proportions and Critical Percentages, although, in order not to extend the expositions

too much, I will develop only the descriptive part of intrameditional statistics, although, it is clearly indicated, that if an Intraindividual Intermeditional Descriptive Statistics can be done, this would imply that there can be a whole rational critical statistics through critical proportions and percentages, something that is mentioned to indicate the real possibility, although in order not to extend the expositions it will be limited to setting out the fundamental, the Intraindividual Intermeditional Descriptive Statistics

19.5.1.11. To the extent that when M measurements are made there may be emesimal measurements of different N, in those cases where there are emesimal measurements of different N the effect of N must be applied, designating measurement “m” that N magnitude predominant in most of the samples, then, every empirical probability belonging to a sample that has an N different from the predominant N in the set of the M measurements, insofar as it is an N different from the predominant one, every empirical probability of a different N sample, from the predominant one, will be multiplied by the quotient of the N magnitude of its respective sample over the N magnitude predominant in the emesimal M measurements. For the case that each measurement had a different N, then, if every empirical probability in each emesimal measurement of the same subject or option belongs to samples of different N, the sample that in particular has the greatest N will be designated measurement “m” according to which the effect of N will be calculated in all the other empirical probabilities, being, then, all the other measurements designated for themselves measurement “mi”, there being only one and unique measurement “m”, that whose sample of subjects or options N is the greatest of all, in the whole sample of emesimal measurements, according to whose magnitude “Nm” the effect of N will be calculated for all the other particular “Nmi” of each respective sample different from “Nm”, so that for all the other “Nmi” measurements, the “Nmi” magnitude will be lower than the “Nm” magnitude

19.5.1.12. To the extent that the Second Method seeks the greatest possible compatibility with the First Method, the normal Intraindividual Intermeditional Descriptive Statistics will be made: arithmetic mean, and dispersion in relation to the arithmetic mean; although it is made clear that Intraindividual Intermeditional

Descriptive Statistics could be made relative to the maximum empirical probability that the subject or option has in a given measurement, or the minimum, or the intermediate between the maximum and minimum probabilities of that same subject or option, or the empirical probability of the subject or option closest to the Intraindividual Arithmetic Mean of all its empirical probabilities, or in relation to any given empirical probability that the subject or option has in any given measurement and it is necessary to know its relative empirical dispersion

19.5.1.13. Mention again that each empirical probability that the same subject or option may have in different measurements will be symbolized “p(xi/me)”, and that the symbol M designates the total number of measurements made, the total number of emesimal measurements

19.5.2. Intraindividual Intermeditional Descriptive Statistics, when all the measurements have equal N

19.5.2.1. Intraindividual Intermeditional Arithmetic Mean, when all the measurements have equal N

∑ p(xi/me) : M

19.5.2.2. Intraindividual Intermeditional Mean Deviation, when all the measurements have equal N

∑ / [p(xi/me) – (∑ p(xi/me) : M)] / : M

19.5.2.3. Intraindividual intermeditional Variance, when all the measurements have equal N

$$\sum [\, p(xi/me) - (\sum p(xi/me) : M) \,]^{2} : M$$

19.5.2.4. Intraindividual Intermeditional Standard Deviation, when all the measurements have equal N

$$\sqrt{ \{ \sum [\, p(xi/me) - (\sum p(xi/me) : M) \,]^{2} : M \} }$$

19.5.3. Intraindividual Intermeditional Descriptive Statistics, when there are measurements of different N

19.5.3.1. Concept of Intraindividual Intermeditional Descriptive Statistics when there are measurements of different N

19.5.3.1.1. Until now, when there were two factors related to samples of different N what was done was to designate a measurement “mi” and a measurement “m”, so that the N magnitude of the “mi” measurement is “Nmi”, and the N magnitude of the “m” measurement is “Nm”, and the quotient of “Nmi” over “Nm” was multiplied by the statistic of the “mi” measurement

19.5.3.1.2. Now then, if we have M measurements, of which it is possible that even each of the M measurements possibly have a different N magnitude, then, if by “mi” is understood that specific “mi” measurement, having now M different measurements, it is necessary that all the N magnitudes of all the M measurements be equated to a single N magnitude of reference, that single N magnitude of reference will be the N magnitude of the specific “m” measurement, so that of all the possible N magnitudes of the M measurements, the greatest N of the whole M will be selected to be “Nm”, so that of all the Ns included in M the only specific “m” measurement will be determined to be that

N which is the greatest of all, becoming “Nm”, and all the other measurements will be designated “mi” measurements whatsoever, so that, in this particular case, in order to equate all the measurements to a specific measurement designated “m”, in this particular case the effect of N will be applied to all the “mi” measurements whatsoever, all of them having an “Nmi” lower than “Nm”, so that every factor of any “mi” measurement whatsoever will be multiplied by the effect of N, the effect of N being equal to dividing the N magnitude of each particular “mi” measurement, that is, dividing the “Nmi” corresponding to that factor, by the N magnitude of the measurement designated “m”, that is “Nm”, “Nm” being the greatest N of the whole M

19.5.3.1.3. Legend

p(xi/me-m) = empirical probability of the measurement designated “m”

p(xi/me-mi) = any empirical probability of M except the one belonging to the “m” measurement

p(xi/me-mi) · (Nmi : Nm) = effect of N times any empirical probability of M except that of the “m” measurement

∑ [p(xi/me-mi) · (Nmi : Nm)] = sum of the product of the effect of N times each empirical probability except that of the “m” measurement

19.5.3.2. Intraindividual Intermeditional Arithmetic Mean, if there are measurements of different N

$$\text{Arithmetic mean} = \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M$$

19.5.3.3. Intraindividual Intermeditional Mean Deviation, if there are measurements of different N

$$\{ / \{ p(xi/me\text{-}m) - \{ \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M \} \} / +$$

$$\sum / \{ [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] - \{ \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M \} \} / \} : M$$

19.5.3.4. Intraindividual intermeditional Variance, if there are measurements of different N

$$\{ \{ p(xi/me\text{-}m) - \{ \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M \}^2 +$$

$$\sum \{ [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] - \{ \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M \}^2 \} : M$$

19.5.3.5. Intraindividual Intermeditional Standard Deviation, if there are measurements of different N

$$\sqrt{} \{ \{ \{ p(xi/me\text{-}m) - \{ \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M \} \}^2 +$$

$$\sum \{ [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] - \{ \{ p(xi/me\text{-}m) + \sum [p(xi/me\text{-}mi) \cdot (Nmi : Nm)] \} : M \}^2 \} : M \}$$

19.6. Towards a universe of rationally critical descriptive statistics

19.6.1. Impossible Probability is a mathematical model that offers an enormous number of possibilities for mathematical research, if I had to develop all the possible avenues of research in a single work it would be unmanageable, as mathematical research needs to be limited to the proposed objectives, it must select those avenues

of research along which to extend, and often, other avenues of research, simply leave them indicated. If I had to develop all the possible descriptive statistics offered by Impossible Probability, each possible descriptive statistics of each Critical Proportion, of each possible individual equation, in order to reach central tendencies, and on the central tendencies the possible critique, it would be difficult to advance in the explanation of the fundamental concepts

[There are several reasons why since 2011, when I published for first time this book, I did not have the opportunity to develop all the potentials that our theory encompass. During all these 14 years, I had to complete my doctoral thesis, what was the first step for our next adventure, coming to London, and start our new project, GAI, when we started working on GAI not many people realised how important is this theory, I still remember one day walking in Picadilly Circus, opening my mobile phone, and the most important news was that Elon Musk and Bill Gates were planning to provide funding for AGI, by the time the big news was AGI, we were already working in the next step after Superintelligence, GAI, I guess if Elon Musk and Bill Gated read our blog at that time, they understood very fast what were planning. Right now, with our AI Revolution, many people understand how important a global AI theory could be by the time Superintelligence is done. During all these 14 years, my life always full of adventure and risk, did not stop, always something to do, to think, a new trap to avoid, a new trap for the ghost in the shell in section 9. That is my life. Right now the most important aim of Impossible Probability is to be able to set up the first foundational international legislation about cyborg experimentation in the International Court of Justice, the foundational layer for an international legislation for AGI, Superintelligence, and GAI, with implications in global security, so our work MUST be debated at the Security Council of United Nations, due to the military implications of cyborg technology and GAI, a long journey, always alone. If we are able to survive the long journey ahead, it is possible that all these potential developments will be written in the future, without deadline]

19.6.2. At the moment it is possible to calculate the intermeditional intraindividual empirical dispersion, it would be possible to subject the intermeditional intraindividual empirical dispersion to rational critique, as well as it would likewise be possible to subject to rational critique Levels of Bias, of the empirical probabilities of the emesimal measurements of the same subject or option and the arithmetic mean of the empirical probabilities of the emesimal measurements of the same subject or option

19.6.3. The possible models of rational critique of intermeditional intraindividual empirical dispersion would vary in each type of study, for example, if in growth study one wants to increase the empirical probability, and in the first measurement a subject or option has the minimum empirical probability, then, an enormous intermeditional intraindividual dispersion would be a positive criterion that there has been an increase in the empirical probability sufficiently critical, provided that it is sufficiently critical. Or if the object of study is decrease, and in the first measurement the subject or option has the maximum, and must tend to be the minimum in the emesimal measurements, likewise the intermeditional intraindividual empirical dispersion would give information on whether the evolution of the subject or option is sufficiently critical.

19.6.4. On the contrary, if in growth study a subject or option already in the first measurement has the maximum empirical probability, then, the slightest empirical dispersion over the M empirical probabilities would be a factor to study, because it could represent a decrease of the empirical probability to the minimums

19.6.5. Likewise, in decrease study, if a subject or option has in the first measurement the minimum empirical probability it would be necessary to study the causes of there being some empirical dispersion, intermeditional intraindividual, because an excessive intraindividual dispersion could represent that the subject or option perhaps has tended towards the maximum in subsequent measurements

19.6.6. Depending on the object of study, and depending on the distribution of the empirical probabilities of the same subject or option in emesimal measurements, different models of rational critique could be designed for each type of study, according to the type of study and according to the behavior of each subject or option in the intermeditional intraindividual studies

19.6.7. While in traditional statistics, the First Method, there is only a single model of descriptive statistics, the normal descriptive statistics, the Second Method creates a whole universe of possible descriptive statistics. All those possible relations that a given element of the sample may have in relation to the other elements of the sample may be *susceptible to being transformed into a descriptive statistics* relative to that given element of the sample, and on the relative descriptive statistics, to that element of the sample, generate models of rational critique on the relative empirical dispersion

19.6.8. If all the concepts that have been explained in a detailed way had to be developed, and all the possible avenues of research that in each particular case open up for the study were carried out, really, it would be something more than an Introduction to Impossible Probability, in this work *the sole aim is to introduce the fundamental concepts* that define Impossible Probability, however the avenues of research that are left open are important. Just as an intermeditional intraindividual descriptive statistics can be done, likewise, descriptive statistics of Possible Variation, of Projected Probabilities, or Predicted Probabilities could be elaborated

19.7. Intermeditional Sample Critique

19.7.1. Concept of Sample Critique of Intermeditional Proportions

19.7.1.1. In Impossible Probability, in addition to critiquing individually the subjects or options it is necessary to critique the tendency of the sample, among other reasons because a behavior may be valid individually, but perhaps it is only that, a truth for that

singular individual in that particular measurement, but which does not correspond to the true universal truth. *The syllogism of the singular, particular and universal* [these three levels are already in GAI], requires that all statistical inference start from a sufficiently informed decision about what is happening, at all levels, so that the objective decision does not become subjective, biased, and is sufficiently logical, coherent, at least, within a reasonable margin of uncertainty, starting from inferring the behavior of the universe from particular measurements to the behavior shown by singular subjects or options

19.7.1.2. The fact that the empirical probability is dependent on the sample, whether the sample N or the sample of direct scores or frequencies, makes it necessary to rationally critique the sample, because a tendency of the empirical probability individually is still an individual tendency, but an individual tendency at no time rules out the idea that it may be an individual tendency induced by the magnitude of the sample

19.7.1.3. Throughout the whole Introduction to Impossible Probability, always, alongside the models of individual rational critique, models of sample rational critique are set out, to determine whether the individual tendency is validated at the sample level, given that then one proceeds to statistical inference. In the event that an individual behavior is not validated in the sample it may be, in part, that perhaps that appearance or phenomenon, event, was the product of the error caused by the very magnitude of the sample. Only when the individual and sample tendency are objectively known can an idea, knowledge, isomorphic, be matured, about the true behavior, in itself, moral or pure, of the universe, within the margin of incoherence, logical or moral, before the truth, which scientific policy is willing to accept for itself, in the isomorphism idea and reality, political morality and ethical morality, which implies accepting the empirical hypothesis if it is really true within a, political, margin of skepticism or doubt, or rejecting it, in essence the contradiction knowledge and reality, appearance and essence, phenomenon and noumenon, reality and politics, the transcendental contradiction between truth morally in itself, the pure truth, and truth

politically for itself, in essence the contradiction nature or substance in itself and the being, in itself, essentially human, in all its individual and social complexity, ***the contradiction between infinite reality versus human limitation***, to determine over the ideology of the political theory of science the most isomorphic idea to the dialectical movement of matter in space time, according to historical, political and ideological interests, which will only admit as truly moral behavior that which corresponds to ***certain interests, generating social margins of error, created in the scientific or ideological struggle, conflicts of interests, according to uncertainty versus what is, in itself, moral or pure, truly true, the truth stripped of everything before itself, generating new cycles of crises, antechambers preceding or antecedents of subsequent revolutions***. What is certain, of the universe, in itself, is constant change, absolute contingency. Reality is the product of the accidents of the universe, insofar as reality is the product of the accidents by, or of, chance, within the ***rational limits of ethics***

19.7.1.4. If in growth study it is studied whether really in a future measurement, be it a second measurement or emesimal measurement, a subject or option increases in empirical probability in relation to its first measurement or in relation to another different subject or option, in any case every increase in growth must necessarily imply an increase in the sample empirical dispersion, or in other words, the sample empirical dispersion of the future measurement must be greater than the sample dispersion of the previous or prior measurement

19.7.1.5. If in decrease study it is studied whether really a subject or option has reduced its empirical probability, in relation to the empirical probability that that same subject or option had in a previous or prior measurement, or in relation to any other empirical probability of a given subject or option in a previous or prior measurement, in any case, every increase in decrease must necessarily imply an increase in the sample empirical dispersion, therefore it must be demonstrated at the sample level, that the empirical dispersion of the second measurement must be greater than the empirical dispersion of the first measurement

19.7.1.6. In synthesis, in growth and decrease study insofar as the ideal is the increase of bias, positive or negative, it will imply a logical increase of the empirical dispersion, therefore, in growth or decrease studies a way to determine whether really, at the sample level, such an increase occurs, in the dispersion, in comparison to the first measurement, is, logically, by comparing whether in the second measurement the sample empirical dispersion is sufficiently greater than the empirical dispersion of the first measurement

19.7.1.7. In equality of opportunities insofar as the ideal is to reduce empirical dispersion, the normal thing is that every subject or option when reducing bias reduces dispersion in the sample, which will be sufficient insofar as sufficient ***tendency to zero*** of the sample empirical dispersion in relation to the sample empirical dispersion of the first measurement

19.7.1.8. Then if, in growth or decrease study, intermeditional, the ideal is that the sample empirical dispersion in the second measurement be sufficiently higher than the first measurement, and in equality of opportunities the tendency to zero of the empirical dispersion in the second measurement be sufficient in comparison to the empirical dispersion of a first measurement, to determine the reliability of the changes sufficiently it is necessary to critique the empirical dispersion

19.7.1.9. In *Probabilidad Imposible* the possible contrasts are of two types, ***differentials or quotients***. The sample differential contrasts that will be made in this section will be through Intermeditional Sample Validity of Equality for equality of opportunities study, and the contrasts through quotient will be made for the study of growth of empirical dispersion, whether due to the increase of positive or negative bias, through Reliable Critical Proportion of Intermeditional Sample growth. In this particular case the contrast model will first be made through Reliable Critical Proportion of Intermeditional Sample Growth, only for the study of increase in the empirical dispersion of the sample, whether growth of empirical dispersion due to increase of positive bias, growth of ideal empirical probabilities, or due to increase of negative bias

19.7.1.10. Reliable Critical Proportion of Intermeditional Sample Growth, whether to validate at the sample level the growth of positive or negative bias, quotient of the normal Mean or Typical Deviation of the second measurement over normal Mean or Typical Deviation of the first measurement, and the result minus critical probability. Zero or positive is accepted. Critical probability equal to the percentage X of reliability, out of one hundred, times the quotient of Maximum Possible Theoretical Mean Deviation, or Maximum Possible Theoretical Standard Deviation, over the Mean or Standard Deviation of the first measurement

19.7.1.11. The legend of the equations will be as follows

DM/1ª = Mean Deviation first measurement

DM/2ª = Mean Deviation second measurement

DM/1ª-m = Mean Deviation of the first measurement designated measurement “m”

DM/2ª-mi = Mean Deviation of the second measurement designated measurement “mi”

Nm = N magnitude of the measurement “m”

Nmi = N magnitude of the measurement “mi”

19.7.2. Reliable Critical Proportion of Intermeditional Sample Growth, between samples of equal N, applied to Mean Deviation

($DM/2^a$: $DM/1^a$) – p(xc) = zero or positive growth of empirical dispersion is accepted

$p(xc) = \{ \{ [(1 – 1/N) \cdot 2] : N \} : DM/1^a \} \cdot (X : 100)$

X = reliability percentage

19.7.3. Reliable Critical Proportion of Intermeditional Sample Growth, between samples of different N, on Mean Deviation

{ [$DM/2^a$-mi · (Nmi : Nm)] : $DM/1^a$-m } – p(xc) = zero or positive bias increase is accepted

$p(xc) = \{ \{ [(1 – 1/Nm) \cdot 2] : Nm \} : DM/1^a$-m $\} \cdot (X : 100)$

X = reliability percentage

19.7.4. Intermeditional Sample Validity of Equality

19.7.4.1. Every reality in Impossible Probability can be critiqued from different models of rational critique. The Reliable Critical Proportion of Intermeditional Growth is a study model to study growth of empirical dispersion, together with the other models of intermeditional rational critique set out in section sixteen devoted to Possible Variations, and compatible with the study of predictions

19.7.4.2. For the intermeditional study of equality, being compatible and complementary to the previous models, an intermeditional way to study the increase between two measurements of the tendency to equality of opportunities is through Intermeditional Sample Validity of Equality, valid only for studies of equality of opportunities, between different measurements

19.7.4.3. Insofar as the object of study in equality is to study the way in which the empirical dispersion of the sample is reduced, then, determine a margin of error over the empirical dispersion of the first measurement, critical probability equal to percentage X of error, out of one hundred, times the Mean or Standard Deviation (DMoS) of the first measurement, then in order to accept whether the tendency to equality of opportunities in the second measurement is sufficiently rational, the Mean or Standard Deviation (DMoS) of the second measurement must be equal to or less than the critical probability, insofar as it must be equal to or less than that proportion of the sample empirical dispersion of the first measurement, within which one wants to reduce the empirical dispersion in the second measurement
19.7.4.4. The Intermeditional Sample Validity of Equality will then be equal to the difference of the critical probability minus Mean or Standard Deviation (DMoS) of the second measurement, zero or positive is accepted. Critical probability equal to the product of percentage X of error, out of one hundred, times Mean or Standard Deviation of the first measurement

Intermeditional Sample Validity of Equality =

$p(xc) – DMoS/2^a$ = zero or positive equality is accepted

$p(xc) = DMoS/1^a \cdot (X : 100)$

X = error percentage

19.7.4.5. Intermeditional Sample Validity of Equality for samples of different N, apply the effect of N to the second measurement

Intermeditional Sample Validity of Equality =

$p(xc) – [DMoS/2^{a}\text{-}mi \cdot (Nmi : Nm)]$ = zero or positive equality is accepted

$p(xc) = DMoS/1^{a}\text{-}m \cdot (X : 100)$

X = error percentage

$DMoS/2^{a}\text{-}mi$ = Mean or Standard Deviation of the second measurement designated measurement “mi”

$DMoS/1^{a}\text{-}m$ = Mean or Standard Deviation of the first measurement designated measurement “m”

Nmi = N magnitude of the measurement “mi”

Nm = N magnitude of the measurement “m”

19.7.5. Intermeditional studies in Impossible Probability

19.7.5.1. Every study of behavior implies studying the change of behavior

19.7.5.2. Every study of change of behavior implies determining when a behavior change is a sufficiently rational behavior to be a universal behavior, provisionally or historically

19.7.5.3. Rational critique, in a certain sense, is that activity or praxis which determines when something is sufficient to suppose a qualitative or quantitative change in matter. Rational critique is an activity or praxis of critical reason; there may exist different models of rational, critical or empirical criteria, with critical probability being the ideal model of critical reason. In reliability study a phenomenon will tend to be ideal when it is equal to or greater than the critical probability. The critical probability is that part of the ideal that science is willing to realize in real reality. For which the phenomenon must be, in error study, equal to or less than that part of uncertainty in the ideal that science is willing to accept. And in reliability study the phenomenon must be equal to or greater than that part of ideal reliability that science is willing to realize. Insofar as the pure or absolute ideal is impossible in a partially limited sample, ***critical reason aims to realize that part of the ideal possible in human reality***, by allowing only the minimum incoherence necessary in the realization of ideals, or by tending to the greatest possible reliability necessary to realize the ideal. Only in a sufficient or infinite human history are ideals inevitable. If history were absolutely rational reality itself would in itself be an ideal, but the human being is a being not always logical, frequently dialectical, in the debate between the reason for being and its logical antithesis, scientific struggle awakens historical, political and ideological *passions*. The history of science, as with natural history, is a complex non-linear system, in which progress is not a constant ascent, it is an endless number of oscillations over the ascending accelerated trend in the progress of reliability. The human being is not always governed by strict logic, that is, ethics, rather by a system of moral flexibility in the acceptance of hypotheses according to historical interests, ***traversing cyclical spaces of scientific crises and***

revolutions because of the human incoherence itself accepted by political moral flexibility. In a normal space-time logically everything should necessarily tend to be normal, that is, natural; following a logical tendency every process should progress to the logical ordering of matter in the free will of events in equality of opportunities. Mathematics is the idealization of reality for the realization of the ideal

19.7.5.4. Moreover, not all models of behavior change are the same, there are different types of change

19.7.5.5. Impossible Probability, as a theory of probability, is the study of chance in history, of everything that happens in the space-time apriorism where a complex system of apparent causes is produced, insofar as never absolutely reliable, and insofar as every cause is a cause within a margin of uncertainty everything can at the same time be a cause of chance. Reality is the product of chance in the universe. History is the eternal becoming of mutations in the distribution of matter, hence variable behavior is the subjective variable or subject of change in the distribution of what happens. Pure objectivity is a utopia for critical reason; accepting uncertainty is accepting the human condition, founded on the "I think," from which the existence of a politically possible reality is deduced. There are different models of change insofar as there are different forms of variable behavior, variables of random origin, from apparently insignificant random principles, natural or social [now technological], which become sufficiently reliable, a pattern of predictable regularity, within a margin of error, while other events behave regularly in a normal way, that is, randomly, without being necessarily reliable, or being in any case randomly normal in free will in equality of opportunities. And finally the model of change proper to the ***experimental method, that produced in behavior in an apparently reliable way, from the manipulation of an independent variable over a dependent variable, for the political manipulation of reality***, natural or social, an experimental manipulation that will only be ethical insofar as it is logical [AI mission right now is to set up an international law for experimental cyborg technologies and global AI]

19.7.5.6. In the statistics of probability, Impossible Probability, the tendency can be studied in purely descriptive terms, for example, given a single measurement to describe the behavior of the sample, based on greater or lesser tendency to equality of opportunities or bias

19.7.5.7. On a measurement, predictions can also be elaborated, and on the predictions determine what future possible measurements should be according to the projected or predicted possible variations, and determine to what extent the empirical results obtained, in future measurements, approach the predictive margin of error. The contrast between the prediction, projected or predicted, and the future reality is the contrast between the apriorism determined over a possible future and the a posteriori value measured in the future; the predictive contrast is the contrast between what the possible value should be a priori and what it really is a posteriori empirical, final and real. Every prediction is an a priori prediction about what the possible future should be; the ideal is that the possible future be in accordance with the ideal projects, now then, only within the acceptance of our incoherences is real reality really identical to our a priori idea, a reason why knowledge is provisional, because beyond doubt there is not sufficient reliability. The propositional reliability of apriorism is inversely proportional to the margin of error one is willing to accept. Outside the margin of skepticism, outside the ideal model, the a priori identity lacks sufficient reliability. An unreliable idea is simply a really *physiological* idea but not representative of external material reality, and an unreliable reality will likewise be a possible reality but not necessarily an ideal reality. Only that reality which is reliable is an ideal reality, and only that idea which truly isomorphic is that idea which represents a materially real reality. Only an ideally reliable identity is possible within the minimum percentage of uncertainty morally necessary, an acceptance of our contradictions which in any case will inevitably create a future logical or moral incoherence. Within the margin of doubt, within the minimum mathematical inconsistency one is willing to accept, the future can be identical a priori to the ought-to-be, determined mathematically in the ideal or real prediction, but outside the reliability determined by our margin of error, outside a priori reliability, or

beyond the rational time of propositional reliability, isomorphism is not guaranteed. All knowledge, insofar as incomplete, lacking knowledge of the infinite qualities of the real, perhaps, possibly is, in itself, inconsistent. Beyond the margin of logical reasoning, outside the margin of coherence, the future lacks sufficient reliability, outside the minimum margin of responsibility one morally lacks sufficient reliability to explain or understand the product of chance of history, the universe itself. All coherence is coherent, within a possible incoherence, logical or moral, mathematical

19.7.5.8. At the moment when we already have ***two measurements***, in addition to contrasting the second measurement against the projections, the structure of the change of behavior can be studied,, starting by studying whether there really has been a change of behavior, and what type of change of ***behavior*** there has been

19.7.5.9. ***Having also two measurements, values can be predicted for possible third measurements, adjusting the forecast error margins to the proportionality in which growth or decrease is experienced in the sample, in order to make more objective evaluations for subsequent measurements*** [obviously, the policy here is to avoid past mistakes in order to shape the most rational hypothesis with a smaller margin of error, otherwise, without learning from past experiences, the third experience will be another mistake to include in the list. There is only one way to know truth, the truth itself, or at least within the margin of error we are willing to accept, as long as there is enough time before the accepted past margins of error become real errors. When an accepted error becomes real, the crisis starts, what can trigger a revolution in science and human history]

19.7.5.10. As regards strictly the ***intermeditional study, having two measurements, intermeditional studies can be made studying the change in the empirical tendency of the sample, to bias or to equality of opportunities, or intermeditional studies can be made, whether of an interindividual or intraindividual nature***

19.7.5.11. The interindividual intermeditional studies are the typical study in which it will be contrasted which is the maximum of the first measurement and the second measurement, or it will be contrasted which is the minimum of the first measurement and second measurement, or it will be contrasted which is the intermediate of the first measurement and the second measurement

19.7.5.12. In intraindividual intermeditional studies the typical study is where, in the same subject or option, the measurements obtained from that same subject or option in two different measurements are contrasted, in order to contrast whether there has been a sufficiently rational change of behavior

19.7.5.13. In general lines, the intermeditional studies, interindividual or intraindividual, provide the opportunity to study the change of behavior, sample or individual, in a rationally critical way, which is complemented by the other forms of rational critique in the statistics of probability or statistical probability, Impossible Probability, in order to study over an apriorism the moral tendency of the being itself to the ought-to-be

20. Omega intermeditional studies

20.1. Introduction to intermeditional studies under omega conditions

20.1.1. It is said that omega conditions occur when in an N greater than two there is a magnitude of ideal subjects or options, insofar as ideal for raising their empirical probability, between two and N minus one

20.1.2. If of N there were only one ideal subject or option whose empirical probability should be maximum empirical probability, p(xi+), given that the maximum empirical probability tended to Maximum Possible Empirical Probability, the unit, then there

would be sufficient tendency to Maximum Possible Theoretical Bias, one minus inversion of N, it is a model in which the necessary conditions of possibility would be given for a rational tendency to Maximum Possible Theoretical Mean Deviation or Maximum Possible Theoretical Standard Deviation

20.1.3. In a model where, given an N greater than two, there is a magnitude of ideals between two and N minus one, insofar as more than one subject or option would tend at the same time to maximum empirical probability, p(xi+), logically none of the subjects or options defined a priori as ideal could come to reach the Maximum Possible Empirical Probability, therefore under omega conditions the maximum empirical probability, p(xi+), should not have to be identical to probability one

20.1.4. An empirical model, to be a model under omega conditions, must comprise at least two ideal subjects or options within N, therefore N must necessarily be greater than two, given that if in an N equal to two both are equally ideal then it is not a model of positive bias of the ideals, since being N equal to two and both equally ideal it would be a model of equality of opportunities

20.1.5. An empirical model, under omega conditions, may at most have N minus one ideal subjects or options, therefore N can necessarily only be greater than two, given that if in a given model at most N minus one must be ideal for omega conditions to be fulfilled, logically, if N comprised only two subjects or options and only one of them were the ideal it would be a model that would meet the necessary conditions to tend to Maximum Possible Theoretical Mean Deviation or Maximum Possible Theoretical Standard Deviation, insofar as if in N equal to two only one were the ideal logically its ideal would be to tend to probability one. If a survey is made on attitudes toward environmentalism and there were only two options, favorable or unfavorable attitudes, the ideal is that among those surveyed the favorable attitude toward environmentalism would have empirical probability one, and the unfavorable attitudes toward environmentalism would have empirical probability zero

20.1.6. It is said that omega conditions occur when, having an N greater than two, there exists a magnitude of ideal subjects or options, to raise their empirical probability, which must be found between at least two ideal subjects or options and at most N minus one ideal subjects or options, given that if in N there were only a single ideal subject or option they would no longer be omega conditions; if there is a single ideal subject or option the necessary conditions of possibility are being given for the empirical model to be able to tend to a model of maximum dispersion, or if the whole N is equal in ideal importance then omega conditions would not occur either, given that empirically it would be a model that should tend to equality of opportunities

20.1.7. It is said that omega conditions occur only and exclusively when, being N more than two, there is a magnitude of ideals between two and N minus one, given that if there were only a single ideal the necessary conditions of possibility would be given in which the model should tend to the maximum possible dispersion, and if the whole N were equally ideal the necessary conditions of possibility would be being given in which the model should tend to equality of opportunities. The principal characteristic of omega models is that, comprising more than one ideal, they neither tend to maximum values nor to equality of opportunities, they will simply show a tendency to the ideals according to the magnitude of their ideals

20.1.8. Depending on the magnitude of the ideals in an omega model the behavior of the model empirically will be different, the smaller the magnitude of ideals in tendency to only two ideals the differentials will tend to increase, for example, the smaller the magnitude of ideal subjects or options then the model will tend to greater normal Levels of Bias, positive or negative, therefore it will tend to greater Mean or Standard Deviation, without ever becoming necessarily identical to the maximum values insofar as the two ideals of the model are really ideals in equality of ideal importance

20.1.9. The greater the magnitude of ideal subjects or options, in tendency to N minus one, the differentials will tend to decrease, the greater the magnitude of ideals the model will tend to reduce normal Levels of Bias, positive or negative, therefore the Mean

or Standard Deviation will descend, without ever being necessarily identical to zero dispersion values insofar as there will always be a magnitude of ideals equal to N minus one, therefore of the whole N there will be a subject or option that will show itself not ideal. If in a given N there were a subject or option that for whatever reason is defined a priori as non-ideal value, then this type of models would be defined as omega model under conditions of N minus one ideals, being then possible to study the N minus one ideals insofar as ideals of an omega model through Validity of Omega, studying that only subject or option a priori defined as non-ideal insofar as non-ideal subject or option to be studied through Validity of Negative Bias insofar as the empirical probability tends to zero, while at sample level insofar as omega model the Omega Sample Level must be applied. In an omega model, in which as a minimum there is from a single non-ideal subject or option, whose ideal is Maximum Possible Negative Bias, or a number of non-ideal subjects or options whose ideal is to decrease the empirical value, the study of the non-ideal subjects or options, in which their ideal is Maximum Possible Negative Bias, must be done by the normal procedures of Validity of Negative Bias or Significance of Negative Bias, Individual Critical Proportions, Theoretical or Empirical, of Negative Bias, Probability of Negative Bias, Rational Critique of Typical Score of Negative Bias, and other tests proper to normal models. In any case, although negative bias in omega models can be studied by the normal procedures, for positive bias only use the specific tests for omega models, and likewise for the study of sample dispersion in omega models the tests expressly designed for the study of omega dispersion must be applied, Omega Sample Level, Critical Ideal Sample Similarity in Mean or Standard Deviation, and all those that will be set out expressly for this type of models

20.1.10. In every omega model of N greater than two and ideals between two and N minus one, the ideals should be studied insofar as omega model, Validity of Omega and Omega Sample Level, as well as the other statistical tests for omega models, while the subjects or options defined as non-ideal should be studied by the normal procedures, such as for example Validity of Negative Bias. Evidently every validation that a model is an omega model implies that the omega validation of the ideals supposes that the non-

ideals tend to behave downward, while the ideals upward

20.1.11. In the last sections, sixteen, contrasts of variations, seventeen, ideal or real predictions, nineteen, intermeditional study both intraindividual and interindividual, statistical test models have been shown for the rational critique of what happens under normal assumptions: either tendency to equality of opportunities, or under the necessary conditions of possibility to tend to the maximum possible dispersion; understanding by equality of opportunities that model where every subject or option should be in theory equal in practice to every subject or option of its same model, and understanding by necessary conditions of possibility of maximum possible dispersion when of the whole N only a single subject or option is defined as ideal tending to probability one, the Maximum Possible Empirical Probability. This type of models will be defined as normal models for the simple reason, especially in universes of limited options, that there are always options better than others, there are always elements more ideal than others, there is always something that by its nature shares a greater percentage of ideality than other elements of its same sample. Although, in the case of there being in N a series of ideal elements, but in different gradation of ideality, another option could be the study through Effective Distribution, ordering from lesser to greater ideal importance the elements to assign them a weighted importance, by which to multiply their frequency, and the result of the product to divide by the sample of direct scores or frequencies, as will be explained when developing the Effective Distribution

20.1.12. The most normal models will then be the non-omega models, the non-omega models being more normal models because they either tend to equality of opportunities or maximum possible dispersion, except the sample of zeros, that is, the most normal thing is that the behavior of reality tends to zero dispersion or maximum, except the sample of zeros, unlike omega models in which what is ideal for an omega model would be neither zero dispersion nor maximum possible dispersion; for an omega model the ideal is the ideal dispersion according to the magnitude of its ideals, sample dispersion that is calculated through Ideal Mean Deviation, Ideal Variance, and

Ideal Standard Deviation

20.1.13. Of all the sections studied from section sixteen devoted to intermeditional studies the only one that would not be necessary to adapt to omega models is section eighteen, devoted to the study in ranking, insofar as if every ordering in ranking comprises shared nth positions, logically, if given an N greater than two the ideals are between two and N minus one, the ideal would be that all the ideals share the same nth position in the ranking relative to the ideal probability, inversion of omega, 1/Ω, while the non-ideal subjects or options would have as shared nth position that associated to probability zero, therefore, the intermeditional models that must be adapted to omega models are those models of rational critique on possible variations, predictions, and interindividual or intraindividual intermeditional studies

20.1.14. Now then, insofar as in omega models there is a lack of maximum values, only ideal values are available, while normally, for equality of opportunities or maximum dispersion, there was the option of elaborating estimates of First or Second Modality, of Empirical Error or Reliability, for the establishment of estimation criteria of the Possible Variation, by Chance or Reliable, Empirical, insofar as the Omega Sample Level is a sample estimate over the Ideal Deviation, Mean or Standard

20.1.15. While normally, in equality or maximum dispersion, by knowing the maximum dispersion, the quotient of sample dispersion over maximum sample dispersion is theoretically a dispersion rate, which could be error or reliability rate, depending on the object of study, in omega models, lacking maximum values, because only ideal values are available, this type of empirical estimates of error or reliability rate will be different, for which the ***Third Modality of Empirical Reliability, gamma, "γ",*** will be created, only for omega models

20.1.16. Then in omega models any estimate of theoretical possible variation, just like in the other tests of section sixteen, must be made critically, by product of the necessary variation by a percentage X of error or reliability out of one hundred, with changes only in the way of estimating the possible empirical variations depending on gamma, the Third Modality of Empirical Reliability, deduced in turn logically the Third Modality of Empirical Error

20.2. Contrast of Possible Variations, by Chance or Reliable, Individual or Sample in omega models, and their Projected Probabilities

20.2.1. Differences between Possible Variations in omega models versus normal models

20.2.1.1. In normal models, those whose dispersion oscillates between zero or maximum, the way to establish a possible variation is by necessary variation by critical ratios or empirical values transformed into empirical rate of error or reliability

20.2.1.2. For example, if in equality of opportunities one wants to study the necessary variation between an empirical probability and inversion of N, the absolute value of the normal Level of Bias acts in itself as necessary variation, or if in positive bias study the necessary variation between the unit, insofar as Maximum Possible Empirical Probability, and the empirical probability of that single ideal subject or option of the sample is studied, that difference, unit minus empirical value, is that necessary value in which the possible variation must occur, while in decrease study of empirical probability, the same empirical probability is the factor variable in itself as a function of which the possible reduction of the probability in future measurements is estimated

20.2.1.3. At the sample level, if the necessary variation is studied, either in equality of opportunities the empirical sample dispersion is in itself the variable to decrease, insofar as it must tend to zero, or the variability factor is equal to the difference of the

maximum possible dispersion minus the empirical sample dispersion

20.2.1.4. Whereas in normal studies there always exists a limit factor as a function of which to establish the necessary variations, on whose product by a factor of error or reliability, empirical or critical, to determine the possible variation in order to decide whether something is a product of chance or is really reliable, in order to contrast the real variations against the possible ones

20.2.1.5. In omega models there will be no maximum tendencies, and in omega models the function performed by theoretical probability, inversion of N, insofar as normal reference probability, in any type of study, including intermeditional studies, will be a function that will tend to be performed by the inversion of omega, 1/Ω

20.2.1.6. The main difference between normal models versus omega models, is that while in normal models there is always a value that acts as maximum or minimum, for example, an empirical probability at most is one or at least zero, empirical dispersion, individual or sample, at most is the maximum possible or at least is zero, these concepts of maxima or minima in omega models are replaced by other concepts in which what is valued is the way in which the real tends to the ideal without the need for a maximum or minimum value, they will simply be ideal values in proportion to the magnitude of the ideals. Evidently the ideal values will act as limit of behavior, but they are not maximum or minimum limits, they are simply limits insofar as they show an ideal behavior, wherein, logically, in Ideal Similarity, Individual or Sample, Critical, the ideal will always be to tend to zero or positive, insofar as it is the way in which rational critique is developed in Impossible Probability, insofar as mathematical criterion of truth for a given critical ratio, but the fact of being zero or positive in Ideal Similarity, Individual or Sample, Critical, does not necessarily imply that a factor must necessarily tend to be maximum or minimum, among other reasons because in omega models no tendency is made to maximum or minimum values, one simply tends to ideal values

20.2.1.7. While in the normal models of equality of opportunities the tendency of the empirical probability to inversion of N necessarily implies the tendency to normal Level of Bias zero, hence Mean or Standard Deviation zero, however in an omega model the fact that the ideals tend to inversion of omega, 1/Ω, does not imply zero dispersion, it will in any case imply that the model tends to an ideal dispersion, whether Ideal Mean Deviation, Ideal Variance or Ideal Standard Deviation

20.2.1.8. While in the normal models of positive bias that single subject or option defined as ideal must tend to Maximum Possible Empirical Probability, hence to Maximum Possible Theoretical Bias, hence to Maximum Possible Theoretical Mean Deviation, or Maximum Possible Theoretical Standard Deviation, in an omega model no tendency is made to maximum values, simply the ideal for omega is to tend to the ideals

20.2.1.9. The Ideal Level of Bias for an omega model is that, while the non-ideal subjects or options tend to Maximum Possible Negative Bias, inversion of N in absolute terms, all the other ideal subjects or options, the Ideal Level of Bias, for the ideals, be equal to inversion of omega minus inversion of N, then in omega models the dispersion must never therefore tend either to maximum values or to zero, except for the non-ideal subjects or options whose Level of Bias must necessarily tend to absolute value of inversion of N, therefore the omega sample empirical dispersion must neither tend to zero nor to maximum values, only to tend to that ideal sample empirical dispersion according to the ideals

20.2.2. Contrasts of Possible Variations, by Chance or Reliable, Theoretical or Empirical, Individual, and projections in omega models

20.2.2.1. What the Contrasts of Possible Individual Variations omega will study

20.2.2.1.1. In an omega model what is really important is the study of the ideals

20.2.2.1.2. In an omega model there are also non-ideal subjects or options, the magnitude of the non-ideal subjects or options is equal to N minus omega.

N – Ω = quantity of non-ideal subjects or options in an omega model

20.2.2.1.3. Now then, insofar as the ideal of a non-ideal subject or option is to tend to zero, logically the way to study the tendency to zero of a non-ideal subject or option is through Validity of Negative Bias, or Significance of Negative Bias, or through the Individual Critical Proportions of Negative Bias, whether Theoretical or Empirical, or the Probability of Negative Bias, and in intermeditional study through Contrast of Possible Variation, by Chance or Reliable, Individual of negative bias, or through predictions, projections or forecasts, of decrease of empirical probability, or the intermeditional studies, interindividual or intraindividual, of negative bias

20.2.2.1.4. What really matters to study in this section dedicated to omega intermeditional models is the behavior of the ideal subjects or options under omega conditions through different measurements, logically the study of the other non-ideal subjects or options, or whose ideal is probability zero, can be studied through the normal intermeditional models

20.2.2.1.5. Insofar as the study is going to *focus* on the behavior of the omega ideals it is possible to distinguish two ways of approaching the study

20.2.2.1.5.1. The first approach for the study of possible omega intermeditional variations is to *focus* on the way in which the ideals increase, within a margin of possible chance or reliability, the direct score or frequency. In this first approach, what is important is not that the Level of Bias relative to inversion of omega tends to be a relative bias zero, understanding by Level of Bias relative to inversion of omega the differential of empirical probability of ideal subject or option minus inversion of omega, 1/Ω, because what would matter in this first approach is that the direct score of each ideal tends to increase

20.2.2.1.5.1.1. In a model where the ideals are greater than one and less than N, it may happen that an empirical probability of an ideal subject or option is greater than inversion of omega for the simple reason that there may exist other ideal subjects or options that are lower than inversion of omega, and even, those ideal subjects or options greater than inversion of omega will be the more greater than inversion of omega the more lower than inversion of omega are those others lower than inversion of omega, which may even come to be lower than inversion of N, allowing those others of positive bias relative to inversion of omega to increase more if they can their positive bias relative to inversion of omega

20.2.2.1.5.1.2. Insofar as given a magnitude of ideals, between two and N minus one, all the ideals, provided that they are equally ideal among themselves, given that otherwise, if there are some subjects or options more ideal than others, there being gradation in ideal importance, Effective Distribution would be applied, if then all the ideals are equally ideal among themselves, then, the ideal is that all the ideals equally tend to increase their direct score or frequency equally

20.2.2.1.5.1.3. The reason why of omega ideals equal in ideal importance there may be ideal subjects or options that have lower empirical probability than others, is for the simple reason that they do not increase their direct score or frequency in the same magnitude as the others

20.2.2.1.5.1.4. If in a subset of ideals in N there are ideals that have higher empirical probability than others, even above inversion of omega, this should not at any time mean that to level the empirical probabilities the object of study should focus on how to reduce direct score or frequency of the ideals with higher empirical probability to facilitate that all the ideals be identical to inversion of omega

20.2.2.1.5.1.5. Insofar as given a subset of ideals in N, the ideal is that every ideal tend to increase the direct score or frequency equally, so that at the moment that all the ideals tend to increase equally their direct score or frequency simultaneously the non-ideal subjects or options tend to zero, then being all the non-ideal subjects or options

equal to zero, and all the ideals tend equally to increase their direct score or frequency, this must necessarily produce that the empirical probabilities of the ideals tend to be equal to inversion of omega

20.2.2.1.5.1.6. Then, under this approach, if there is any ideal whose empirical probability is lower than inversion of omega what the study should do to guarantee that all the omega ideals have the same empirical probability, inversion of omega, is to guarantee that all the ideals equally tend to increase equally their direct scores or frequencies while simultaneously the non-ideal subjects or options tend to zero direct scores or frequencies

20.2.2.1.5.1.7. Under this approach the only way to guarantee that all the ideals have empirical probability equal to inversion of omega, that is, the inversion of the ideals, is by all the ideals equally increasing their direct scores or frequencies while all the other non-ideal subjects or options, N minus omega, tend to zero direct scores or frequencies

20.2.2.1.5.1.8. Evidently this first approach of the object of intermeditional study where it would have more validity is through the intermeditional study of the evolution of the direct scores or frequencies, for which it could be done through the First Method or traditional statistics, to study the evolution of the direct scores or frequencies, directly, and determine when and to what extent the ideal can finally be obtained, that the non-ideals be zero and all the ideals be equal among themselves

20.2.2.1.5.2. The second approach would be that of the statistics of probability or statistical probability, the Second Method, insofar as probability studies proportions
20.2.2.1.5.2.1. In a study of proportions what matters is not whether a subject or option has the highest direct scores, what matters is the relational value of the direct scores or frequencies among themselves

20.2.2.1.5.2.2. Let us suppose a model of ideals greater than one and less than N, where it happens that within the omega subset, all being equally ideal, there are ideals that show a direct score or frequency higher than other ideals, being a priori in theory equally ideal, then those ideals that in theory being equal to the other ideals nevertheless have higher direct score or frequency will logically have higher empirical probability

20.2.2.1.5.2.3. Now then, let us suppose that, there being ideals with different empirical value, ideals with lower empirical value and ideals with higher empirical value, that is, ideal subjects or options that have higher empirical probability and other ideal subjects or options with lower empirical probability, however, there is a situation where, at the same time that the non-ideals tend to zero, in the ideals that had lower empirical value in the first measurement there is an increase in direct scores or frequencies although not sufficient to be the new maxima of the sample, insofar as there are still others that have higher direct scores or frequencies, although, for these latter that had the maximum values since the first measurement, the growth rate between both measurements is not as high as that of those other subjects or options that, being a priori ideal, had lower empirical value in the first measurement

20.2.2.1.5.2.4. If, given a subset of ideals, omega, it turns out that, there being ideals initially of lower empirical value, and initially other ideals having higher empirical value, it turns out that in a subsequent measurement those ideals initially of lower empirical value experience a significantly higher growth rate, in second measurement, than the growth rate that an ideal that in first measurement had higher empirical value may show, then it will be observed that those ideals of higher empirical probability in first measurement, although they continue to retain in second measurement being the maximum empirical probability, would in any case be a maximum probability lower than that of the first measurement as those ideals of lower empirical value in the first measurement increase their growth rate

20.2.2.1.5.2.5. Insofar as probability measures relationships of proportionality, it may happen that a given ideal subject or option increases in a second measurement its direct score or frequency, and as long as the growth rate between the two measurements, in that given subject or option, is a growth rate lower than that of another different subject or option that increases to a greater magnitude its direct scores or frequencies, although that given subject or option has experienced a real increase in direct scores or frequencies, if that real growth has been at a rate lower than that of another different subject or option, finally, the empirical probability of that given subject or option in the second measurement will be lower than that which that same given subject or option had in a first or previous measurement, then intermeditionally

the difference of the empirical probability of the second measurement minus empirical probability of the first measurement will be equal to a negative-signed value proportional to the disadvantage in its growth rate in comparison to the other subjects or options, which having a growth rate higher than that of that given subject or option, have been able to achieve a differential, between empirical probability of second and first measurement, of positive sign

20.2.2.1.5.2.6. The importance that this type of intermeditional dynamics has, of how the growth rate can negatively or positively affect in omega models of ideals between two and N minus one, is of utmost transcendence, given that, if from the approach of the direct scores or frequencies in an omega model what would be important would be to focus on the increase of the direct scores or frequencies equally, so that the non-ideals be zero, and the ideals be inversion of omega, inversion of the ideals

20.2.2.1.5.2.7. The way in which the different growth rates in the direct scores or frequencies are produced in the process of leveling all the ideals into really being identical to the true ideal, inversion of omega, is a process by which, insofar as those ideals a priori of lower empirical value must tend to equate to inversion of omega, as well as those ideal values a priori of higher empirical value, this process of equal leveling of every possible ideal into inversion of omega, must necessarily produce that those ideals that a priori had higher empirical probability tend to reduce their empirical probability to level it to inversion of omega, proportionally those ideals that a priori had lower empirical probability must increase it to level to inversion of omega, then from this approach the intermeditional study of the ideal subjects or options must be done from the point of view of the tendency of the ideals to level at inversion of omega

20.2.2.1.5.2.8. From this approach more proper to the theory of statistical probability or statistics of probability, the object of study will then be to make predictions about the tendencies of all the ideals to be inversion of omega, which in some cases may mean to reduce their empirical probability, and in others to increase it, without the fact that in those cases in which the empirical probability is reduced to inversion of omega meaning that its direct score or frequency is being reduced, the only thing that equating all the ideals at inversion of omega means is that their growth rate is being levelled

20.2.2.1.6. Insofar as in omega studies there is a lack of maximum empirical values of dispersion as a function of which to establish empirical rates of error or reliability, insofar as quotient of empirical sample values over theoretical sample maxima, as can indeed be done in the normal models of dispersion between zero or maximum, the estimates on empirical rates of reliability in omega designs must be made on a new model of empirical reliability rate, the Third Modality of Empirical Reliability, which will be called gamma, "γ", the third letter of the Greek alphabet

20.2.2.1.7. In order to explain later with greater attention the Third Modality of Empirical Reliability, gamma, for omega models, first the contrast models of omega Possible Variations will be shown through critical values, together with their respective projections, and afterwards the Third Modality of Empirical Reliability gamma for omega models will be explained, and the Possible Variations and Empirical Predictions developed. In any case, prior to the expositions, it should be set out what the effect of omega is

20.2.2.1.8. The effect of Omega

20.2.2.1.8.1. The effect of N is called the effect produced by any variation in N on the empirical probabilities, insofar as every magnitude in a sample is a dependent variable, among other factors, on the magnitude N, so that if the greater the N the lesser the probability of theoretical bias, and the lesser the N the greater the probability of theoretical bias, the empirical dimension of probability is a function dependent on N

20.2.2.1.8.2. Now then, at the very moment it is said that the magnitude N is a variable magnitude, the fact that the magnitude N is variable implies that if N can be subject to changes equally there may be variations in the number of ideal subjects or options that form the omega subset

20.2.2.1.8.3. If omega is the subset of ideals that there are within a particular N, and the magnitude N can be variable, necessarily if N changes the magnitude of the subset of ideals in omega can also be subject to change. If N tends to grow then the number of ideal subjects or options can also grow, and if N tends to decrease the magnitude of ideal subjects or options can also decrease, because every change in N in an omega model may imply a change of omega, which will necessarily have repercussions on the

inversion of omega, the inversion of omega being the ideal probability for every ideal subject or option within the subset N of omega ideals between two and N minus one

20.2.2.1.8.4. Necessarily if the ideal probability for every ideal subject or option is inversion of omega

$1/\Omega$ = ideal probability for every ideal subject or option comprised in omega

20.2.2.1.8.5. As omega tends to increase the ideal probability will tend to decrease

20.2.2.1.8.6. And as omega tends to decrease the ideal probability will tend to increase

20.2.2.1.8.7. Therefore if from here it is deduced that the ideal probability is inversely proportional to omega, every change in a magnitude N, which implies changes in the omega magnitude, will imply inversely proportional changes on the ideal probability

20.2.2.1.8.8. Every increase of N that implies increasing omega will signify a tendency to zero of the ideal probability, then, insofar as N can tend to infinity it is conceivable the hypothesis that omega tends to infinity then the ideal probability would be zero, just as every decrease in the magnitude N that implies a reduction of omega will represent a tendency to zero point five of the ideal probability, insofar as the ideal probability, inversion of omega, will be an ideal probability that, depending on the magnitude of ideals within N, omega will be a variable dependent on N

20.2.2.1.8.9. Insofar as every change in the magnitude N can represent changes in the omega magnitude, and every change in omega will represent changes in the ideal probability, if for the study of how any variation of N affects the empirical probabilities the empirical probability must be multiplied by the effect of N, then to study how a change in the omega magnitude can affect the ideal probability, the effect of omega on an ideal probability will be equal to the product of the effect of omega by the ideal probability of the “mi” measurement, the effect of omega being equal to the quotient of the omega magnitude of the measurement designated “mi”, over that other omega magnitude of the “m” measurement

Effect of omega on an ideal probability “mi” = 1/Ω-mi · (Ω-mi : Ω-m)

1/Ω-mi = ideal probability in the measurement designated “mi”

Ω-mi = omega magnitude of the measurement designated “mi”

Ω-m = omega magnitude of the measurement designated “m”

20.2.2.1.8.10. So that if the effect of omega is the product of the ideal probability of the “mi” measurement by the quotient of its omega magnitude over the omega magnitude of the measurement designated “m”, then the effect of omega on an ideal probability “mi” will be equal to transforming the ideal probability of “mi” into the ideal probability of the “m” measurement

Effect of omega on an ideal probability “mi” = 1/Ω-mi · (Ω-mi : Ω-m) = 1/Ω-m

20.2.2.1.9. In order not to be redundant in the expositions the different models of intermeditional rational critique will be set out without including the effect of N or of omega, logically indicating that in the event of there being variations in the magnitude N or omega between two different measurements the effect of N or omega should be applied, for which it would be necessary to designate one measurement to be measurement “mi”, and the other measurement to be measurement “m”, so that to the measurement designated “mi” all its empirical probabilities will be multiplied by the effect of N, empirical probability of the measurement designated “mi” by the quotient of dividing the magnitude N of the “mi” measurement by the magnitude N of the measurement designated “m”, and likewise, if omega is different in two distinct measurements, to apply the effect of omega to the ideal probability of the “mi” measurement, so that if the effect of omega is applied to the ideal probability of “mi”,

the ideal probability of “mi” will be transformed directly into the ideal probability of “m”, then, in synthesis, for every omega model where there are changes in N between two measurements, the effect of N must be applied to all the statistics of the measurement designated “mi”, at the same time that the ideal probability of the “mi” measurement will be transformed directly into the ideal probability of the measurement *designated* “m”

20.2.2.2 . Studies of Theoretical Possible Variation and Theoretical Omega Projections, Individual and Sample, in studies of equal N

20.2.2.2.1. Studies of Theoretical Possible Variation, and Theoretical Omega Projections, Individual, in studies of equal N

20.2.2.2.1.1. Individual Omega Necessary Variation, absolute value of the differential between empirical probability of first measurement minus inversion of the ideals, inversion of omega

Individual Omega Necessary Variation = / ($p(xi/1^a) – 1/\Omega$) /

20.2.2.2.1.2. Individual Omega Theoretical Possible Variation by Chance, the necessary variation times a percentage X of error out of one hundred

Individual Omega Theoretical Possible Variation by Chance = / ($p(xi/1^a) – 1/\Omega$) / · (X : 100)

X = error percentage

20.2.2.2.1.3. Individual Omega Contrast of Theoretical Possible Variation by Chance, Theoretical Possible Variation by Chance Individual Omega minus the result of the difference of the necessary variation of the first measurement minus necessary variation of the second measurement

$\{ / (p(xi/1^{a}) – 1/\Omega) / \cdot (X : 100) \} – [/ (p(xi/1^{a}) – 1/\Omega) / – / (p(xi/2^{a}) – 1/\Omega) /]$ = zero or positive leveling increase by chance of the ideals

X = error percentage

20.2.2.2.1.4. Individual Omega Theoretical Reliable Possible Variation, necessary variation times a percentage X of reliability out of one hundred

Individual Omega Theoretical Reliable Possible Variation = $/ (p(xi/1^{a}) – 1/\Omega) / \cdot (X:100)$

X = reliability percentage

20.2.2.2.1.5. Individual Omega Contrast of Theoretical Reliable Possible Variation, difference of the necessary variation in first measurement minus necessary variation in second measurement, and the result minus the Individual Omega Theoretical Reliable Possible Variation

$[/ (p(xi/1^{a}) – 1/\Omega) / – / (p(xi/2^{a}) – 1/\Omega) /] – [/ (p(xi/1^{a}) – 1/\Omega) / \cdot (X : 100)]$ = zero or positive reliable increase of the leveling of the ideals is accepted

X = reliability percentage

20.2.2.2.1.6. Theoretical Projected Probability over Theoretical Reliable Possible Variation, Individual Omega

20.2.2.2.1.6.1. Theoretical Projected Probability over Theoretical Reliable Possible Variation, Individual Omega when in first measurement the empirical probability of the ideal is higher than inversion of omega

20.2.2.2.1.6.1.1. Theoretical Projected Probability over Theoretical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is higher than inversion of omega, for a second measurement

$$p(xi/2^{a})´ = \{ p(xi/1^{a}) – [(p(xi/1^{a}) – 1/\Omega) \cdot (Xa : 100)] \} \pm p(xc)$$

Xa = reliability percentage

$$\pm p(xc) = / \{ 1/\Omega – \{ p(xi/1^{a}) – [(p(xi/1^{a}) – 1/\Omega) \cdot (Xa : 100)] \} \} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.2.1.6.1.2. Theoretical Projected Probability over Theoretical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is higher than inversion of omega, for an emesimal measurement [for me]

$$p(xi/me)´ = \{ p(xi/1^a) - \{ \{ [(p(xi/1^a) - 1/\Omega) \cdot (Xa : 100)] : (M - 1) \} \cdot (me - 1) \} \} \pm p(xc)$$

Xa = reliability percentage

$$\pm p(xc) = / \{ 1/\Omega - \{ p(xi/1^a) - \{ \{ [(p(xi/1^a) - 1/\Omega) \cdot (Xa : 100)] : (M - 1) \} \cdot (me - 1) \} \} \} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.2.1.6.2. Theoretical Projected Probability over Theoretical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is lower than inversion of omega

20.2.2.2.1.6.2.1. Theoretical Projected Probability over Theoretical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is lower than inversion of omega, for a second measurement

$$p(xi/2^a)´ = \{ p(xi/1^a) + [(1/\Omega - p(xi/1^a)) \cdot (Xa : 100)] \} \pm p(xc)$$

Xa = reliability percentage

$$\pm p(xc) = \{ 1/\Omega - \{ p(xi/1^a) + [(1/\Omega - p(xi/1^a)) \cdot (Xa : 100)] \} \} \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.2.1.6.2.2. Theoretical Projected Probability over Theoretical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is lower than inversion of omega, for an emesimal measurement

$$p(xi/me^{a})´ = \{ p(xi/1^{a}) + \{ \{ [(1/\Omega - p(xi/1^{a})) \cdot (Xa : 100)] : (M - 1) \} \cdot (me - 1) \} \} \pm p(xc)$$

Xa = reliability percentage

$$\pm p(xc) = \{ 1/\Omega - \{ p(xi/1^{a}) + \{ \{ [(1/\Omega - p(xi/1^{a})) \cdot (Xa : 100)] : (M - 1) \} \cdot (me - 1) \} \} \cdot (Xb:100)$$

Xb = error percentage

20.2.2.2.2. Studies of Theoretical Omega Possible Variation, and Theoretical Omega Projections, Sample

20.2.2.2.2.1. Sample Omega Necessary Variation, absolute value of the Mean or Standard Deviation (DMoS) of the first measurement minus the ideal Mean or Standard Deviation. In order not to extend the expositions, the examples will be shown through Mean Deviation (DM); in case it is necessary to make compatible with the First Method, which gives priority to the Standard Deviation (S), simply substitute Mean Deviation for Standard Deviation, and substitute Ideal Mean Deviation for Ideal Standard Deviation

Sample Omega Necessary Variation =

$$/ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} /$$

$DM/1^{a}$= Mean Deviation First Measurement

20.2.2.2.2.2. Sample Omega Theoretical Possible Variation by Chance, necessary variation times the percentage X of error out of one hundred

Sample Omega Theoretical Possible Variation by Chance =

$$/ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot (X : 100)$$

X = error percentage

$DM/1^{a}$= Mean Deviation First Measurement

20.2.2.2.2.2.1. Contrast of Sample Omega Theoretical Possible Variation by Chance, difference of the possible variation minus the difference, of absolute value of the Mean Deviation of the first measurement minus Ideal Mean Deviation, minus absolute value of the difference of the Mean Deviation of the second measurement minus Ideal Mean Deviation

Contrast Sample Omega Theoretical Possible Variation by Chance =

$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot (X : 100) \} -$$
$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / - / \{ DM/2^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \} =$$

zero or positive tendency to the ideal by chance is accepted

X = error percentage

$DM/1^{a}$= Mean Deviation First Measurement

20.2.2.2.2.3. Sample Omega Theoretical Reliable Possible Variation, necessary variation times the percentage X of reliability out of one hundred

Sample Omega Theoretical Reliable Possible Variation =

$$/ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot (X : 100)$$

X = reliability percentage

20.2.2.2.2.3.1. Contrast of Sample Omega Theoretical Reliable Possible Variation, difference between absolute value of the difference, of Mean Deviation of the first measurement minus Ideal Mean Deviation, minus absolute value of the difference of the Mean Deviation of the second measurement minus Ideal Mean Deviation, and finally the result minus Sample Omega Theoretical Reliable Possible Variation, zero or positive reliable tendency to the ideal is accepted

Contrast of Sample Omega Theoretical Reliable Possible Variation =

$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / - / \{ DM/2^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \} -$$

$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot (X : 100) \} =$$ zero or positive reliable are accepted

X = reliability percentage

20.2.2.2.2.3.2. Theoretical Omega Projected Mean Deviation in second Measurement
20.2.2.2.2.3.2.1. Theoretical Omega Projected Mean Deviation in second measurement, if the Mean Deviation in first measurement is higher than Ideal Mean Deviation

$$DM/2^{a} \acute{} = \{ DM/1^{a} - \{ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} \cdot (Xa : 100) \} \} \pm p(xc/b)$$

Xa = reliability percentage

$$\pm p(xc) = / \{ \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} -$$

$$\{ DM/1^{a} - \{ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} \cdot (Xa : 100) \} \} \} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.2.2.3.2.2. Theoretical Omega Projected Mean Deviation in second Measurement, if the Mean Deviation in first measurement is lower than Ideal Mean Deviation

$$DM/2^{a}{}' = \{ DM/1^{a} + \{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot (Xa : 100) \} \} \pm p(xc/b)$$

Xa = reliability percentage

$$\pm p(xc) = \{ \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} -$$
$$\{ DM/1^{a} + \{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot (Xa : 100) \} \} \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.2.2.3.3. Theoretical Omega Projected Mean Deviation for emesimal measurement

20.2.2.2.2.3.3.1. Theoretical Omega Projected Mean Deviation for emesimal measurement, if the Mean Deviation in first measurement is higher than Ideal Mean Deviation

$$DM/2^{a\,\prime} = \{ DM/1^{a} - \{\{\{\{ DM/1^{a} - \{\{[\, 1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} \cdot (Xa : 100) \} : (M - 1) \} \cdot (me - 1) \}\} \pm p(xc/b)$$

Xa = reliability percentage

$$\pm p(xc) = / \{\{\{[\, 1/N \cdot (N - \Omega)] \cdot 2 \} : N \} - \{ DM/1^{a} - \{\{\{ DM/1^{a} - \{\{[\, 1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} \cdot (Xa : 100) \} : (M - 1) \} \cdot (me - 1) \}\} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.2.2.3.3.2. Theoretical Omega Projected Mean Deviation for emesimal measurement, if the Mean Deviation in first measurement is lower than Ideal Mean Deviation

$$DM/2^{a\,\prime} = \{ DM/1^{a} + \{\{\{ / \{ DM/1^{a} - \{\{[\, 1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} / \cdot (Xa : 100) \} : (M - 1) \} \cdot (me - 1)\}\} \pm p(xc/b)$$

Xa = reliability percentage

$$\pm p(xc) = \{\{\{[\, 1/N \cdot (N - \Omega)] \cdot 2 \} : N \} - \{ DM/1^{a} + \{\{\{ / \{ DM/1^{a} - \{\{[\, 1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} / \cdot (Xa : 100) \} : (M - 1) \} \cdot (me - 1) \}\} \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.3. Studies of Empirical Possible Variation and Empirical Omega Projections, Individual and Sample, in samples of equal N

20.2.2.3.1. The Third Modality of Empirical Reliability gamma for omega models

20.2.2.3.1.1. The main difference between normal studies and omega studies, the normal models being those whose dispersion oscillates between zero or maximum, zero dispersion if the object of study is equality of opportunities, maximum dispersion if it is a study under the hypothesis that there is only one possible ideal subject or option in the whole N, the omega models being those in which over an N greater than two there is a number of ideals between two and N minus one, is that, while for normal models there are parameters of what the maximum or minimum tendencies of dispersion are, zero or maximum dispersion, for omega models there are no parameters of maxima or minima of dispersion, there simply exists that dispersion which is the most ideal according to the magnitude of the ideals. The empirical dispersion, whether individual, Level of Bias, or sample, Mean or Standard Deviation (DMoS), is a variable dependent on three factors: N, sample of direct scores or frequencies, object of study. If the object of study is equality the dispersion tends to zero, if the object of study is to raise only to the maximum the probability of a single subject or option the dispersion tends to the maximum, if the object of study is the behavior of a subset of ideal subjects or options, in N, subset greater than one and less than N, the dispersion must tend to the ideal dispersion

20.2.2.3.1.2. The ideal dispersion in an omega model, that model which integrates within N a subset of ideal subjects or options greater than one and less than N, is a dispersion which at the individual level for the ideals will be equal to inversion of omega minus inversion of N, Ideal Level of Bias omega, omega being the number of ideal subjects or options in the ideal subset within N, so that at the sample level the sample dispersion will be that by which all the non-ideal subjects or options have probability zero while all the ideal subjects or options have probability equal to inversion of omega, hence their Ideal Level of Bias will be equal to inversion of omega minus inversion of N, hence the Ideal Mean Deviation will be equal to the average of the double of the product of inversion of N by the difference of N minus omega, or Ideal Mean Deviation equal to

the average of the double of the product of omega by the difference of inversion of omega minus inversion of N

20.2.2.3.1.2.1. The different expressions of the Ideal Mean Deviation

20.2.2.3.1.2.1.1. The Ideal Mean Deviation equal to the average of the sum of the product, omega times the difference of inversion of omega minus inversion of N, plus the product of inversion of N times the difference of N minus omega

$$\text{Ideal Mean Deviation} = \{ [(1/\Omega - 1/N) \cdot \Omega] + [1/N \cdot (N - \Omega)] \} : N$$

$$\text{Ideal Mean Deviation} = \{ [(1/\Omega - 1/N) \cdot \Omega] + [1/N \cdot (N - \Omega)] \} \cdot 1/N$$

20.2.2.3.1.2.1.2. The Ideal Mean Deviation equal to the average of the double of the product of inversion of N by the difference of N minus omega

$$\text{Ideal Mean Deviation} = \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N$$

$$\text{Ideal Mean Deviation} = \{ [1/N \cdot (N - \Omega)] \cdot 2 \} \cdot 1/N$$

20.2.2.3.1.2.1.3. The Ideal Mean Deviation equal to the average of the double of the product of omega by the difference of inversion of omega minus inversion of N

$$\text{Ideal Mean Deviation} = \{ [(1/\Omega - 1/N) \cdot \Omega] \cdot 2 \} : N$$

$$\text{Ideal Mean Deviation} = \{ [(1/\Omega - 1/N) \cdot \Omega] \cdot 2 \} \cdot 1/N$$

20.2.2.3.1.2.2. In any case the Ideal Variance will always be

$$\text{Ideal Variance} = \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [(1/N)^{2} \cdot (N - \Omega)] \} : N$$

$$\text{Ideal Variance} = \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [(1/N)^{2} \cdot (N - \Omega)] \} \cdot 1/N$$

20.2.2.3.1.2.3. And the Ideal Standard Deviation

$$\text{Ideal Variance} = \sqrt{} \{ \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [(1/N)^{2} \cdot (N - \Omega)] \} : N \}$$

$$\text{Ideal Variance} = \sqrt{} \{ \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [(1/N)^{2} \cdot (N - \Omega)] \} \cdot 1/N \}$$

20.2.2.3.2. Insofar as in Impossible Probability, from the first phase in the year 2001 the Mean Deviation has had more relevance, given that it remains faithful to the true differentials observed in the Levels of Bias, insofar as it does not transform the biases to the square nor subject their average again to square root, being then more reliable the information of the Mean Deviation insofar as it maintains the essence of the information, in the sense that it has not undergone any external transformation, simply nullifying the sign of the differentials by interpreting them in absolute form, the way that later the calculations will be made in Third Modality of Empirical Reliability will be through Mean Deviation, although whenever scientific policy deems it necessary Mean Deviation may be substituted by Standard Deviation, and likewise Ideal Mean Deviation by Ideal Standard Deviation, which is why the Third Modality of Empirical Reliability gamma for omega models will be explained below both for Mean or Standard Deviation

20.2.2.3.3. The fact implied by the lack of maximum values in omega models means that each time a given tendency is had it cannot be compared in relation to its maximum values, only in relation to its ideal values, which in the case of omega models the fact

of being ideal does not imply being maximum or minimum for the sample, being ideal means that in the Level of Ideal Similarity the logarithm of quotient of the empirical value of the ideal over inversion of omega must be zero, or the Level of Bias relative to inversion of omega, of any empirical probability of an ideal subject or option, is zero, or if one prefers zero necessary variation, between the empirical probability of an ideal and the inversion of the ideals

20.2.2.3.4. Insofar as the Ideal Mean Deviation is not a maximum value, if one wants to estimate what empirical rate a Mean Deviation represents, in an omega model, in relation to the Ideal Mean Deviation, insofar as the Ideal Mean Deviation is not a maximum value one cannot calculate the rate of proportion as Mean Deviation over Ideal Mean Deviation, because the quotient will not measure the real proportionality rate of reliability, because logically, those empirical models whose Mean Deviation is higher than the Ideal Mean Deviation would show a quotient, of Mean Deviation over Ideal Mean Deviation, greater than unity, when it is evident that insofar as the Mean Deviation is higher than the Ideal it means that there is a margin of error, but a margin of error that is not calculated in that quotient, because insofar as it is a margin of error above the ideal, the quotient would show a proportionality rate greater than one hundred percent, where in any case it would be that difference, in which the Mean Deviation exceeds the Ideal Deviation, the error rate by which the Mean Deviation would be above the ideal

20.2.2.3.5. Insofar as the Ideal Mean Deviation is not a maximum value, any Mean Deviation may be situated in a margin of error around the Ideal Mean Deviation both below and above, there may be Mean Deviations which, not being identical to the Ideal Mean Deviation, will be Mean Deviations that exceed by a margin of error the Ideal Mean Deviation, while other Mean Deviations lower than the Ideal Mean Deviation will be Mean Deviations in a margin of error below the Ideal Mean Deviation

20.2.2.3.6. To calculate that margin of error by which a Mean Deviation may be below or above the Ideal Mean Deviation, what can be done is, directly, to estimate the absolute value of the difference of the Mean Deviation minus the Ideal Mean Deviation

Real margin of error between empirical and ideal sample dispersion =

$$/\{ DM - \{\{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} /$$

20.2.2.3.7. Once the real margin of error has been calculated, which is in essence the necessary variation from the empirical Mean Deviation to the ideal, that difference which is the necessary variation must be interpreted as the real margin of error by which the empirical value is not equal to the ideal

20.2.2.3.8. But that empirical value by which the real value is not equal to the ideal would not in itself be empirical error rate, it would simply be the difference between the real value and the ideal value, that difference by which the real is not identical to the ideal, and that value, insofar as difference, to know what proportion of error it represents of the ideal must be divided by the ideal, that is, absolute value of the differential, of the real value minus the ideal, divided by the ideal value, in order to obtain the proportionality rate of error over the one hundred percent ideal, which will be in essence the Third Modality of Empirical Error for Mean Deviation, and will be symbolized in the following way "¬γ", not gamma

Third Modality of Empirical Error, ¬γ, in DM [Mean Deviation]=

$$\neg\gamma = /\{ DM - \{\{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} / : \{\{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \}$$

20.2.2.3.9. Logically if the Third Modality of Empirical Error, ¬γ, in Mean Deviation [DM] is equal to dividing by Ideal Mean Deviation the absolute value of the difference of Mean Deviation minus Ideal Mean Deviation

20.2.2.3.10. The Third Modality of Empirical Reliability, “γ”, gamma, in Mean Deviation, will be equal to the difference of unity minus the Third Modality of Empirical Error in Mean Deviation, that is, gamma is equal to the difference of unity minus the result of dividing by Ideal Mean Deviation the absolute value of the difference of Mean Deviation minus Ideal Mean Deviation

Third Modality of Empirical Reliability =

$$\gamma = 1 - \{ / \{ DM - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / : \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \}$$

20.2.2.3.11. Then the Third Modality of Empirical Error, ¬γ, in Standard Deviation will be equal to dividing by Ideal Standard Deviation the absolute value of the difference of Standard Deviation minus Ideal Standard Deviation

Third Modality of Empirical Error, ¬γ, in Standard Deviation =

$$\neg\gamma = / \{ S - \sqrt{} \{ \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [(1/N)^{2} \cdot (N - \Omega)] \} : N \} \} / :$$

$$\sqrt{} \{ \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [(1/N)^{2} \cdot (N - \Omega)] \} : N \}$$

20.2.2.3.12. Then the Third Modality of Empirical Reliability, γ, in Standard Deviation equal to unity minus the Third Modality of Empirical Error, through Standard Deviation, that is, unity minus the quotient of dividing by Ideal Standard Deviation the absolute value of the difference of Standard Deviation minus Ideal Standard Deviation

Tecera Modalidad de Fiabilidad Empírica, γ, en Desviación Típica =

$$\gamma = 1 - \{ / \{ S - \sqrt{} \{ \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [1/N^{2} \cdot (N - \Omega)] \} : N \} \} / :$$

$$\sqrt{} \{ \{ [(1/\Omega - 1/N)^{2} \cdot \Omega] + [1/N^{2} \cdot (N - \Omega)] \} : N \} \}$$

20.2.2.3.13. Insofar as the Third Modality of Empirical, Error or Reliability, for omega models directly offers a sample rate of error or reliability, in case of studying the

proportionality of error or reliability critically it could be contrasted directly in relation to a critical ratio of error or reliability, as it can be contrasted in relation to percentages X, of error or reliability, out of one hundred

20.2.2.3.14. Omega Critical Sample Proportion

20.2.2.3.14.1. Omega Critical Sample Proportion of Error, whether through Mean or Standard Deviation, critical probability minus Third Modality of Empirical Error, zero or positive is accepted, critical probability equal to percentage X of error out of one hundred

Omega Critical Sample Proportion of Error =

p(xc) – ¬γ = zero or positive the empirical dispersion of the omega model is accepted

p(xc) = X : 100

X = error percentage

20.2.2.3.14.2. Omega Critical Sample Proportion of Reliability, whether through Mean or Standard Deviation, Third Modality of Empirical Reliability minus critical probability, zero or positive is accepted, critical probability equal to percentage X of reliability out of one hundred

Omega Critical Sample Proportion of Reliability =

$\gamma - p(xc)$ = zero or positive the empirical dispersion of the omega model is accepted

$p(xc) = X : 100$

X = reliability percentage

20.2.2.4 Possible Variations and Omega Projections through empirical gamma criteria

20.2.2.4.1. Once the Third Modality, of Empirical Error or Reliability, for omega models has been explained, if previously the way to estimate the Possible Variations, by Chance or Reliable, Individual or Sample, and the different projections, from the perspective of theoretical critique according to theoretically critical ratios, critical probabilities, was explained, below the equations will be shown to make a critique of the possible variations, and the projections, from empirical criteria, of error or reliability, according to the gamma value. In order not to extend the expositions too much, only the models of rational critique will be shown for the case of samples of equal N, indicating that if in the measurements being compared there are different N magnitudes the effect of N must be applied to that measurement which, when applying the effect of N, simplifies the equations, being in any case the way of applying both to individual statistics, empirical probabilities, or sample, empirical sample dispersion, by their product by the quotient of their N magnitude over the N magnitude of that other sample in relation to which it is related. In the same way, whenever, when there are changes in N, there are changes in omega, likewise, apply the effect of omega to the ideal probability, inversion

of omega, by transforming the ideal probability of the measurement designated “mi” to be the ideal probability of the measurement designated “m”

20.2.2.4.2 . Studies of Empirical Possible Variation and Empirical Omega Projections, Individual and Sample

20.2.2.4.2.1. Studies of Empirical Possible Variation, and Empirical Omega Projections, Individual

20.2.2.4.2.1.1. Individual Omega Necessary Variation, absolute value of empirical probability of first measurement minus inversion of the ideals, inversion of omega, as explained previously

Individual Omega Necessary Variation = / ($p(xi/1^a) – 1/\Omega$) /

20.2.2.4.2.1.2. Individual Omega Empirical Possible Variation by Chance, the necessary variation times Third Modality of Empirical Error

Individual Omega Empirical Possible Variation by Chance = / ($p(xi/1^a) – 1/\Omega$) / · ¬γ

20.2.2.4.2.1.3. Individual Omega Contrast of Empirical Possible Variation by Chance, Individual Omega Empirical Possible Variation by Chance minus the result of the difference of the necessary variation of the first measurement minus necessary variation of the second measurement

Individual Omega Contrast of Empirical Possible Variation by Chance =

$\{ / (p(xi/1^{a}) – 1/\Omega) / \cdot \neg\gamma \} – [/ (p(xi/1^{a}) – 1/\Omega) / – / (p(xi/2^{a}) – 1/\Omega) /]$ = zero or positive leveling increase by chance of the ideals

20.2.2.4.2.1.4. Individual Omega Empirical Reliable Possible Variation, necessary variation times Third Modality of Empirical Reliability

Individual Omega Empirical Reliable Possible Variation = $/ (p(xi/1^{a}) – 1/\Omega) / \cdot \gamma$

20.2.2.4.2.1.5. Individual Omega Contrast of Empirical Reliable Possible Variation, difference of the necessary variation in first measurement minus necessary variation in second measurement, and the result minus the Individual Omega Empirical Reliable Possible Variation

$[/ (p(xi/1^{a}) – 1/\Omega) / – / (p(xi/2^{a}) – 1/\Omega) /] – [/ (p(xi/1^{a}) – 1/\Omega) / \cdot \gamma]$ = zero or positive reliable increase of the leveling of the ideals is accepted

20.2.2.4.2.1.6. Empirical Projected Probability over Empirical Reliable Possible Variation, Individual Omega

20.2.2.4.2.1.6.1. Empirical Projected Probability over Empirical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is higher than inversion of omega

20.2.2.4.2.1.6.1.1. Empirical Projected Probability over Empirical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is higher than inversion of omega, for a second measurement

$$p(xi/2^{a})´ = \{ p(xi/1^{a}) - [(p(xi/1^{a}) - 1/\Omega) \cdot \gamma] \} \pm p(xc)$$

$$\pm p(xc) = / \{ 1/\Omega - \{ p(xi/1^{a}) - [(p(xi/1^{a}) - 1/\Omega) \cdot \gamma] \} \} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.1.6.1.2. Empirical Projected Probability over Empirical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is higher than inversion of omega, for an emesimal measurement (me)

$$p(xi/me)´ = \{ p(xi/1^{a}) - \{ \{ [(p(xi/1^{a}) - 1/\Omega) \cdot \gamma] : (M - 1) \} \cdot (me - 1) \} \} \pm p(xc)$$

$$\pm p(xc) = / \{ 1/\Omega - \{ p(xi/1^{a}) - \{ \{ [(p(xi/1^{a}) - 1/\Omega) \cdot \gamma] : (M - 1) \} \cdot (me - 1) \} \} \} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.1.6.2. Empirical Projected Probability over Empirical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is lower than inversion of omega

20.2.2.4.2.1.6.2.1. Empirical Projected Probability over Empirical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is lower than inversion of omega, for a second measurement

$$p(xi/2^{a})´ = \{ p(xi/1^{a}) + [(1/\Omega - p(xi/1^{a})) \cdot \gamma] \} \pm p(xc)$$

$$\pm p(xc) = \{ 1/\Omega - \{ p(xi/1^{a}) + [(1/\Omega - p(xi/1^{a})) \cdot \gamma] \} \} \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.1.6.2.2. Empirical Projected Probability over Empirical Reliable Possible Variation Individual Omega when in first measurement the empirical probability of the ideal is lower than inversion of omega, for an emesimal measurement

$$p(xi/me^{a})´ = \{ p(xi/1^{a}) + \{ \{ [(1/\Omega - p(xi/1^{a})) \cdot \gamma] : (M - 1) \} \cdot (me - 1) \} \} \pm p(xc)$$

$$\pm p(xc) = \{ 1/\Omega - \{ p(xi/1^{a}) + \{ \{ [(1/\Omega - p(xi/1^{a})) \cdot \gamma] : (M - 1) \} \cdot (me - 1) \} \} \} \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.2. Studies of Empirical Possible Variation, and Empirical Omega Projections, Sample

20.2.2.4.2.2.1. Sample Omega Necessary Variation, absolute value of the differential of the Mean or Standard Deviation (DMoS) of the first measurement minus the Ideal Mean or Standard Deviation. In order not to extend the expositions, the examples will be shown through Mean Deviation; in case it is necessary to make compatible with the First Method, which gives priority to the Standard Deviation, substitute Mean Deviation for Standard Deviation, and substitute Ideal Mean Deviation for Ideal Standard Deviation

Sample Omega Necessary Variation =

$$/ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} /$$

20.2.2.4.2.2.2. Sample Omega Empirical Possible Variation by Chance, necessary variation times Third Modality of Empirical Error

Sample Omega Empirical Possible Variation by Chance =

$$/ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot \neg\gamma$$

20.2.2.4.2.2.2.1. Contrast of Sample Omega Empirical Possible Variation by Chance, difference of the Sample Omega Empirical Possible Variation by Chance minus absolute value of the difference, of the Mean Deviation of the first measurement minus Ideal Mean Deviation, minus absolute value of the difference of the Mean Deviation of the second measurement minus Ideal Mean Deviation, provided that this latter differential is lower than the former. Zero or positive tendency to the ideal by chance is

accepted

Sample Omega Empirical Possible Variation by Chance =

$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot \neg \gamma \} -$$

$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / - / \{ DM/2^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \} =$$

zero or positive tendency to the ideal by chance is accepted

X = error percentage

20.2.2.4.2.2.3. Sample Omega Empirical Reliable Possible Variation, necessary variation times Third Modality of Empirical Reliability

Sample Omega Empirical Reliable Possible Variation =

$$/ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot \gamma$$

20.2.2.4.2.2.3.1. Contrast of Sample Omega Empirical Reliable Possible Variation, difference between absolute value of the difference, of Mean Deviation of the first measurement minus Ideal Mean Deviation, minus absolute value of the difference of the Mean Deviation of the second measurement minus Ideal Mean Deviation, and finally the result minus Sample Omega Empirical Reliable Possible Variation, zero or positive reliable tendency to the ideal is accepted

Contrast of Sample Omega Empirical Reliable Possible Variation =

$$\{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / -$$

$$/ \{ DM/2^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \} - \{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot \gamma \}$$

= zero or positive reliable are accepted

20.2.2.4.2.2.3.2. Empirical Projected Deviation in second Measurement

20.2.2.4.2.2.3.2.1. Empirical Projected Deviation in second measurement, if the Mean Deviation in first measurement is higher than Ideal Mean Deviation

$$DM/2^{a} \acute{} = \{ DM/1^{a} - \{ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} \cdot \gamma \} \} \pm p(xc/b)$$

$$\pm p(xc) = / \{ \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} - \{ DM/1^{a} - \{ \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} \cdot \gamma \} \} \} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.2.3.2.2. Empirical Projected Deviation in second Measurement, if the Mean Deviation in first measurement is lower than Ideal Mean Deviation

$$DM/2^{a} \acute{} = \{ DM/1^{a} + \{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot \gamma \} \} \pm p(xc/b)$$

$$\pm p(xc) = \{ \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} -$$

$$\{ DM/1^{a} + \{ / \{ DM/1^{a} - \{ \{ [1/N \cdot (N - \Omega)] \cdot 2 \} : N \} \} / \cdot \gamma \} \} \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.2.3.3. Empirical Projected Deviation for emesimal measurement

20.2.2.4.2.2.3.3.1. Empirical Projected Deviation for emesimal measurement, if the Mean Deviation in first measurement is higher than Ideal Mean Deviation

$$DM/2^{a}{}' = \{ DM/1^{a} - \{\{\{\{ DM/1^{a} - \{\{[1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} \cdot \gamma \} : (M - 1) \} \cdot (me - 1) \}\} \pm p(xc/b)$$

$$\pm p(xc) = / \{\{\{[1/N \cdot (N - \Omega)] \cdot 2 \} : N \} - \{ DM/1^{a} - \{\{\{\{ DM/1^{a} - \{\{[1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} \cdot \gamma \} : (M - 1) \} \cdot (me - 1) \}\}\} / \cdot (Xb : 100)$$

Xb = error percentage

20.2.2.4.2.2.3.3.2. Empirical Projected Deviation for emesimal measurement, if the Mean Deviation in first measurement is lower than Ideal Mean Deviation

$$DM/2^{a}{}' = \{ DM/1^{a} + \{\{\{ / \{ DM/1^{a} - \{\{[1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} / \cdot \gamma \} : (M - 1) \} \cdot (me - 1) \}\} \pm p(xc/b)$$

$$\pm p(xc) = \{\{\{[1/N \cdot (N - \Omega)] \cdot 2 \} : N \} - \{ DM/1^{a} + \{\{\{ / \{ DM/1^{a} - \{\{[1/N \cdot (N - \Omega)] \cdot 2 \} : N \}\} / \cdot \gamma \} : (M - 1) \} \cdot (me - 1) \}\}\} \cdot (Xb : 100)$$

Xb = error percentage

20.3. Intermeditional rational critique, intrainvidual or interindividual, for omega models

20.3.1. The intermeditional tests set out so far, in the form of Contrasts of Possible Variations, by Chance or Reliable, Empirical or Theoretical, for omega models, and the aprioristic estimation of Projected Probabilities, Empirical or Theoretical, for omega models, are types of tests that can offer important advantages for intraindividual intermeditional study, insofar as in every intraindividual intermeditional study critical statistics can be developed on what should be in the future the ideal evolution of a given ideal subject or option, that is, the rational critique of what should be the very ideal or natural evolution of the ideals, given starting conditions, being one among the possible ideals in an N greater than two among a number of ideals between two and N minus one

20.3.2. The main difference between the intermeditional tests set out in section nineteen versus those set out in section sixteen or seventeen, is that while the Contrasts of Possible Variations and the Projected, or Predicted, Probabilities allow the formulation of critical values of the individual tendency, of the same subject or option, in a time interval, the intermeditional critique from the perspective set out in section nineteen allows critique of the interindividual intermeditional tendency, in addition to the intraindividual

20.3.3. Given a series of ideals, in an N greater than two which comprises ideals between two and N minus one, ***the ideal or natural evolution of the ideals must be a process that allows comparisons between different subjects or options of different samples,*** whether or not they have the same N, whether or not they have the same number of ideal subjects or options omega, as it is a problem that is resolved through the effect of N and the effect of omega

20.3.4. For intermeditional rational critique in omega models, valid both for interindividual or intraindividual intermeditional studies, *two forms will be set out*, whether through the rational critique of differentials or of proportions, always, logically, critiqued according to an ideal critical value, the critical ratio, and models of intermeditional rational critique will be set out both at the individual and sample level

20.3.4.1. In order not to be redundant in the exposition of the statistical tests, it will be set out only for interindividual models, where empirical probabilities of different subjects or options are compared, one being of the first measurement, "p(xi/1^a)", and the different one of the second measurement, "p(xn/2^a)". In any case this same model of rational critique could be applied to intraindividual intermeditional studies in the event that the two empirical probabilities of both measurements belong to the same subject or option

20.3.4.2. If the empirical probabilities are from measurements of different N apply the effect of N to one of the two to choose, by product of the empirical values of that selected measurement, "mi", by the quotient of dividing its N by the N of that other measurement designated "m", and likewise, if there are measurements of different omega value, transform the inversion of omega of the "mi" measurement into the inversion of omega of the "m" measurement by multiplying the ideal probability of the "mi" measurement by the effect of omega

20.3.5. Intermeditional rational critique individual omega

20.3.5.1. Individual Intermeditional Omega Leveling, difference of a critical probability minus the absolute value of the difference of the empirical probability of a subject or option of the second measurement minus inversion of omega. Zero or positive sufficient tendency to the inversion of the ideals, that is, inversion of omega, is accepted. The critical probability is equal to the product of percentage X of error, out of one hundred, by the absolute value of the difference of the empirical probability of a subject or option of the first measurement minus inversion of omega

Individual Intermeditional Omega Leveling =

p(xc) – / (p(xn/2ª) – 1/Ω) / = zero or positive intermeditional tendency to the ideal is accepted

p(xc) = / (p(xi/1ª) – 1/Ω) / · (X : 100)

X = error percentage

20.3.5.2. Omega Intermeditional Individual Critical Proportion, difference of the empirical probability of a subject or option of the second measurement minus inversion of omega, and the absolute value of the result between absolute value of the difference of empirical probability of a subject or option of the first measurement minus inversion of omega. The difference of critical probability minus result of the quotient must be zero or positive, in order to accept tendency to level the ideals in the inversion of the ideals. The critical probability is equal to percentage X of error out of one hundred

Omega Intermeditional Individual Proportion =

p(xc) – [/ (p(xn/2ª) – 1/Ω) / : / (p(xi/1ª) – 1/Ω) /] = zero or positive the tendency is accepted

p(xc) = X : 100

X = error percentage

20.3.6. Intermeditional rational critique sample omega

20.3.6.1. The Third Modality of Empirical Error is equal to dividing by ideal sample dispersion the absolute value of the difference of the real dispersion minus the ideal

20.3.6.2. If in omega models the ideal is that the error tends to decrease, logically, the empirical error rate in intermeditional second measurement must be equal to or less than that proportion of the margin of error of the first measurement willing to accept in the second measurement, then the Intermeditional Omega Validity of Error will be equal to critical probability minus Third Modality of Empirical Error of the second measurement, accepting only zero or positive, and the critical probability being equal to the Third Modality of Empirical Error of the first measurement times a percentage X of error out of one hundred

Intermeditional Omega Validity of Error =

$p(xc) – ¬\gamma/2^a$ = zero or positive tendency to level the ideals is accepted

$p(xc) = ¬\gamma/1^a \cdot (X : 100)$

X = error percentage

$¬\gamma/2^a$ = Third Modality of Empirical Error in second measurement

$¬\gamma/1^a$ = Third Modality of Empirical Error in first measurement

20.3.6.3. Intermeditional Omega Critical Proportion of Error, critical probability minus the quotient of the Third Modality of Empirical Error of the second measurement over the Third Modality of Empirical Error of the first measurement. Zero or positive the tendency to level the ideals is accepted. The critical probability is equal to percentage X of error out of one hundred

$p(xc) - (\neg\gamma/2^{a} : \neg\gamma/1^{a})$ = zero or positive tendency to level the ideals is accepted

$p(xc) = X : 100$

X = error percentage

20.3.6.4. Intermeditional Omega Validity of Reliability, gamma value of the second measurement minus gamma value of the first measurement, and the result minus critical probability. Zero or positive then the ideals tend to level. The critical probability is equal to percentage X of reliability, out of one hundred, by the difference of unity minus the gamma value of the first measurement

$(\gamma/2^{a} - \gamma/1^{a}) - p(xc)$ = zero or positive tendency to level the ideals is accepted

$p(xc) = (1 - \gamma/1^{a}) \cdot (X : 100)$

X = reliability percentage

$\gamma/2^{a}$ = Third Modality of Empirical Reliability in second measurement

$\gamma/1^{a}$ = Third Modality of Empirical Reliability in first measurement

20.3.6.5. Intermeditional Omega Critical Proportion of Reliability, quotient of gamma value of second measurement over gamma value of first measurement, and the quotient minus critical probability. Zero or positive it is accepted that the ideals tend to level. The critical probability is equal to percentage X of reliability, out of one hundred, by the quotient of unity over the gamma value of the first measurement

$(\gamma/2^{a} : \gamma/1^{a}) - p(xc) =$ zero or positive tendency to level the ideals is accepted

$p(xc) = (1 : \gamma/1^{a}) \cdot (X : 100)$

X = reliability percentage

20.4. Synthesis of intermeditional critique in omega models

20.4.1. Normal models are those, except samples of zeros, whose dispersion oscillates between zero or maximum, whether in equality of opportunities in ideal tendency to zero dispersion, or of maximum dispersion if in N there exists only a single possible ideal subject or option

20.4.2. Omega models will be those where, over an N greater than two, there is a subset of ideals between two and N minus one, models where the ideal need not necessarily coincide with what should be maxima or minima, insofar as they are simply ideals

20.4.3. The intermeditional critique models set out in this section are the adaptation, to omega models, of the type of equations for intermeditional rational critique set out in previous sections for normal models, in which a difference that will determine the omega intermeditional rational critique is that the ideal relative Level of Bias for this type of models would be empirical probability minus inversion of omega equal to zero, then the Ideal Level of Bias would be equal to inversion of omega minus inversion of N